2018

"We Considered Ourselves a Team:" A View of Co-teaching from the Perspectives of Graduate Teaching Assistants and Students

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By

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A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Arts

In

Communication Studies

Minnesota State University, Mankato

Mankato, Minnesota

May 2018

April 25, 2018

Title: “We Considered Ourselves a Team:” A View of Co-teaching from the Perspectives of Graduate Teaching Assistants and Students

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This thesis has been examined and approved by the following members of the thesis committee.

Thesis Defense Completion: 4/25/2018

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Abstract

"We Considered Ourselves a Team:"
A View of Co-teaching from the Perspectives of Graduate Teaching Assistants and Students

Alyssa N. Harter, M.A. Minnesota State University, Mankato, 2018.

Previous research has explored the influence of co-teaching models on student learning in the K-12 grade curriculum. However, little research explores the effects of co-teaching models implemented in higher education among graduate teaching assistants (GTAs). This study examines the benefits and drawbacks of co-teaching models in higher education classes for both GTAs and students. Surveys and interviews were used to collect data from 36 undergraduate students and three GTAs at a mid-sized Midwestern university. In addition to measures of cognitive and affective learning, content analysis of the surveys, interviews, and a reflexive journal were used to identity emerging themes pertaining to the benefits, drawbacks, and student learning outcomes of co-teaching in higher education. Results reveal that GTAs perceive a variety of teaching approaches, instructor experiences, instructor chemistry, and instructor approachability as benefits of co-teaching. Drawbacks included power distances and lack of familiarity with co-teaching models to be drawbacks of co-teaching in higher education. Students claimed diverse instructor perspectives, variety of teaching styles, increased communication skills, and fresh perspectives to be benefits of co-teaching in higher education. Students found drawbacks included: a confusing class structure and rejection of traditional instructional styles. Additionally, students in co-teaching classrooms reported higher levels of affective learning when compared to students in traditional classrooms. Implications for utilizing the co-teaching as a model for training GTAs are explored.

Acknowledgements

Growing up, I was always reminded of the saying "those who can, do; those who can't, teach" because my parents knew of the career that I wanted to obtain within education as a teacher. Although a career as an educator didn't come full circle until obtaining my teaching assistantship at Minnesota State University, I focused a majority of my personal and undergraduate research interests on instructional communication and pedagogy. To be able to conduct this research and contribute to the teaching and learning experience in higher education is, to say the least, an honor. It would be nearly impossible to thank everyone who has supported me in pursing my education and writing my research, but I'd like to give gratitude to the following people to whom I am thankful.

First, I need to thank my chair and advisor, Dr. Laura Jacobi. The agency you provided me for the implementation and completion of my project was truly the motivator that kept me going. Your passion for teaching and ability for mentorship has allowed me to grow as an instructor, researcher, and student. You have provided me with countless opportunities for professional and scholastic growth that will be beneficial in future endeavors. Thank you for being a leader, mentor, and overall, friend.

Second, I need to thank my committee members—Dr. Kristi Treinen and Dr. Elizabeth Sandall—for providing their expertise throughout the thesis process. You both possess passion for education that is deeply related to student growth within the academic and civic spheres. Thank you for offering fresh perspectives and challenging my naïve schools of thought. My final project would not be the same if you weren't involved!

Third, thank you to my friends for their unconditional love and support during this process. From late nights studying to celebratory drinks, you have provided support

through the good and bad times. I cannot thank you enough! Thank you to my family for supporting the continuation of my education in Minnesota, even when my intention was difficult to understand. You are the most hard-working individuals that I know, which is why I have been successful as a first-generation college student. Thank you to my supportive partner, Ben. When I was stressed, crying, or uncertain about the future, you were always my shoulder to cry on. You know how to brighten the room and place a smile on my face. Without you, the foundation for finishing my degree would have been rocky. Thank you to my supportive friend, roommate, and co-teaching partner, Balencia. You have seen me at my lowest over the past year but offered your support in ways I didn't even know were possible. To my friends, family, and partner—I love you all unconditionally and cannot thank you enough for your unwavering support.

Finally, this project would not have been possible without the students and GTA that volunteered their time and thoughts to further my research. Your effort in providing stories and perceptions have made my research possible. Your input provides foundations for improving the pedagogical approaches used in higher education, which is beneficial to students and teachers alike!

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Chapter 1

Introduction

When I was growing up, my mother always used to joke that I would choose a career as a teacher. Her justification, of course, was because I would always "play school" with my friends and insist on being the teacher that delivered lessons. Her prediction for my future was not far from the truth. While I didn't become a formal teacher through earning an education degree, life came full circle when I attended college. I started as a Social Work major, changed to Secondary Education, and finally switched to Communication Studies. Self-realization took time in pursuit of my degree, but the process was worth every step of the way in finding a discipline to study that I am truly passionate about.

When I met with an advisor, she asked where I envisioned my career headed. My response was that I wanted to be a teacher, just not the type of teacher that follows strict curriculum guidelines when instructing my students. I wanted more freedom in the classroom, much more freedom than our education system provides K-12 instructors in their practice. My advisor recommended earning my Bachelor's degree in Communication Studies, then continue on for my Master's and finally my doctorate degree. In this process, I could teach undergraduate students about Communication Studies and have my schooling paid for—sounded like a win to me! It was at this moment in my life that I realized I could fuse my passion for education with my interest in Communication. This came in the form of Instructional Communication, which allowed me to research topics such as instructor identity and student learning outcomes.

Studying my passion through a field of study that I find the most fascinating was a dream come true; I finally felt at home.

When I began instructing undergraduate students at Minnesota State University, my passion for teaching Communication Studies had finally come to head. I was passionate about the content, curious to find new methodologies for teaching, and increase student interest in the course. During this time, I watched colleagues struggle with finding their passion in the classroom. I felt internal struggle watching them disregard their students' learning experience or fail to engage or grow as instructors. The passion I still held for teaching was justification that this was the career path that I needed to pursue. Nonetheless, I decided to utilize my passion for teaching as the foundation of my thesis research.

As my time at Minnesota State University comes to an end, I am leaving my mark in my department, in the classroom, and in the hearts of the various students that I connected with over the past semesters of instruction. From helping with the inception of a co-teaching course to instructing international students, the Communication Studies department and Minnesota State University will have successful implementation of co-teaching instructional models that are far from traditional. Through these instructional and academic endeavors, I share my experience and research findings to which I built my thesis study.

Purpose of Study

Having a personal interest in communication pedagogy and the collaborative teaching process, I decided to examine the planning and execution of co-teaching models within higher education classrooms. To seek understanding of the successes and

challenges of co-teaching, I analyze this topic through the perspectives of graduate teaching assistants (GTAs) and students enrolled within co-teaching classrooms. The rationale of this study will be discussed before presenting proposed research questions and the precis of subsequent chapters for this study.

Rationale

Co-teaching models have been pedagogical tools utilized within the classroom since the early 1950s, focusing on the benefits and drawbacks of co-teaching among students and instructors. While co-teaching has been around for almost 70 years, co-teaching models have been limited when used in higher education courses and have been scarcely researched. Even when studied, GTAs have been eliminated from such research. Despite this gap in research, co-teaching offers benefits to instructors and students (Walters & Misra, 2013). Additionally, co-teaching has important implications for the field of Communication Studies. This topic proves important to study because it would allow an understanding of co-teaching approaches as it relates to the growth of GTAs and undergraduate students in higher education.

While co-teaching models have been implemented among general and special educators (Potts & Howard, 2011), the utilization of co-teaching models has been selectively implemented in higher education courses. In higher education, educators are often collaborative in their research, yet not always collaborative in teaching. Perhaps higher education faculty members do not collaborate on instruction because they are limited to teaching loads in a semester-length course, especially when compared to K-12 grade educational settings (Lock et al., 2016). In addition, when co-teaching is utilized in the classroom, it requires faculty to invest more time and energy into their collaborative

processes (Held & Rosenberg, 1983); it is likely that this leads to less interest in the implementation of collaborative teaching models amongst faculty.

While few scholars have attempted co-teaching across disciplines in higher education, even less GTAs have approached the design and implementation of co-teaching models within their classrooms (Walters & Misra, 2013). While co-teaching can be utilized as a form of GTA training, it requires more "hands-on involvement and intense application than other teaching training forms" (Walters & Misra, 2013). The investment of time and energy into co-teaching with GTAs may deter established faculty members from forming a co-teaching relationship with a new instructor. While co-teaching is rare among graduate departments, the potential benefits of co-teaching partnerships for instructors and their students can outweigh the drawbacks that arise when implementing this specific instruction style in the classroom.

If used effectively, co-teaching models can be implemented within basic courses and/or courses solely taught by graduate students. For a new instructor, like a graduate teaching assistant, the transition from novice to veteran involves learning discipline-specific content and pedagogy (Smith, 2005). New instructors must learn to communicate effectively within the classroom, requiring the use of varied instructional strategies for diverse learners and competent communication with students, colleagues, and administrators (Hunt, Simonds, & Cooper, 2002). Placing emphasis on building necessary communication skills among new instructors creates the possibility of developing and implementing training programs for GTAs that allow co-teaching methodology to be implemented.

The use of co-teaching models also allows graduate students to work in conjunction with one another to ensure quality teaching practices within the classroom. Being new instructors, GTAs can navigate their pedagogical choices with their co-teaching partner, often developing their own teaching style as a result (Walter & Misra, 2013). Having another instructor in the classroom allows the co-teaching partners to observe and implement different teaching strategies, such as lecturing, discussion, and small group work (Walter & Misra, 2013). When things go awry, the co-teaching partner can offer feedback on areas of improvement for his/her colleague. Furthermore, co-teaching partners can design different assessment tools collaboratively, which allows for immediate feedback from one another during the design process**.**

For students in a co-teaching classroom, there is the potential for better learning outcomes. Students in co-teaching classrooms experience more individualized instruction, more feedback from their instructors, more opportunities to respond, and more praise for positive behaviors and redirection for negative behaviors (Sweigart & Landrum, 2015). While student benefits of co-teaching approaches versus traditional teaching approaches have been studied, little to no research on student learning outcomes such as cognitive learning and affective learning have been measured in co-teaching classrooms. It is important to examine the influences of co-teaching on student affective and cognitive learning to further examine the benefits and drawbacks of co-teaching in higher education.

Co-teaching lends itself especially well to the discipline of Communication Studies because the communication needs of teachers influence the success of co-teaching in the classroom. Instructors must engage in competent communication with

their co-teaching partners to address their thoughts, feelings, and actions pertaining to effective teaching in the classroom (Conderman, Johnston-Rodriguez., & Hartman, 2009). Cramer (2006) notes the importance of instructors remaining in constant communication with each other during the co-teaching experience to ensure successful implementation of content. Furthermore, co-teachers emphasize the importance of compatibility in determining the success of co-teaching (Scruggs, Mastropieri, & McDuffie, 2007). If instructors do not agree on a topic, the nature of communication between the two will alter the foundation of the co-teaching relationship, which may cause problems in the classroom. The success of co-teaching is reliant on the nature of communication skills between co-teachers in-and-out of the classroom.

While little research has examined co-teaching models within higher education classrooms, scholars within the Communication Studies discipline have failed to explore co-teaching models, specifically with implementation among GTAs. By examining the benefits and drawbacks of co-teaching among GTAs and students in the field of Communication, this research will add to the current body of knowledge that combines the perspective of Communication scholars with the practice of co-teaching.

Research Questions

This study aims to investigate the implementation of the co-teaching model among GTAs within the communication field in higher education and to evaluate the effectiveness of co-teaching implementation from the perspective of GTAs and students enrolled within their courses. This study will address four research questions pertaining to co-teaching within these classrooms. To truly understand the benefits and drawbacks of co-teaching among GTAs, I begin by posing the following research question:

RQ1: From the perspective of GTAs, what are the benefits and drawbacks of co-teaching versus traditional approaches?

Additionally, I view the relationship between instructor and students to be a transactional model. In the context of the classroom, the transactional model is a process in which "teachers and students mutually influence each other with their verbal and nonverbal messages" (Mottet, Richmond, & McCroskey, p. 5, 2006). As much as instructors are affecting their students, they are being affected by their students in return. To evaluate the perspectives of students within co-teaching and traditional classrooms, I aim to explore whether students believe there are implications for having more than one instructor in the classroom. To that end, I pose a second question:

RQ2: From the perspective of students, what are the benefits and drawbacks of co-teaching versus traditional approaches?

To draw a comparison between the student learning outcomes of co-teaching classrooms compared to traditional classrooms, I added two additional research questions. My third question evaluates affective learning, while my fourth question addresses cognitive learning outcomes. To that end, I ask the following questions:

RQ3: Do students perceive higher levels of affective learning in co-taught or traditional classrooms?

RQ4: Do students perceive higher levels of cognitive learning in co-taught or traditional classrooms?

The proposed research questions act as a guide to examine the effects of the development and implementation of co-teaching models within the higher education classrooms of GTAs.

Precis of Subsequent Chapters

With the purpose of the study introduced and research questions posed, Chapter Two contains a review of literature that builds critical foundations for this research project. The literature reviewed pertains to the emergence of co-teaching as a field, co-teaching within higher education, and a discussion of co-teaching models. Additionally, literature exploring the benefits and drawbacks of co-teaching for instructors is explored. The benefits and drawbacks, in conjunction with student learning outcomes, are addressed. The literature review expands on the previous research that influenced the nature of this study.

Chapter Three contains a detailed discussion of the research methods for this study and provides the theoretical justification for the methods used: qualitative interviews, surveys, and a reflexive journal with my observations. I begin by explaining my personal experience designing and implementing a co-teaching course in higher education. Further, I examine the means for data collection of this study, including recruitment procedures and participant samples. I explain the procedures and design of the qualitative interviews, surveys, and reflexive journal utilized in this study. I also define the scales used to quantitatively measure affective and cognitive learning,

specifically *Affect toward Instructor* and *Cognitive Learning Scale*. Last, I explain the methods of analysis used to analyze results. Qualitative content analysis was used in drawing out themes from the interviews and open-ended survey data, and independent sample t-tests were used in comparing levels of affective and cognitive learning.

Chapter Four specifies the results of the analysis of this study. In this chapter, I organize and discuss interview and survey responses, and the observations from my reflexive journal, as they relate to the research questions that frame this study. Results pertaining to the levels of affective and cognitive learning among students in co-teaching and traditional classrooms are also provided.

Chapter Five contains a discussion of the results of the study along with implications. Additionally, I address the limitations of the study and present avenues for future research.

Chapter 2

Review of Literature

Reviewing previous literature helps to lay the foundation for this study. It is first important to explore how co-teaching has evolved within general and special education classrooms before reviewing the various models of co-teaching. Next, co-teaching within the context of higher education and its influence on GTAs will be examined. Then, the benefits and drawbacks of co-teaching for instructors and students will be explored. Lastly, student learning outcomes (i.e. affective and cognitive learning) will be examined in the context of co-teaching.

Emergence of Co-Teaching

Pedagogical approaches in the classroom are constantly changing regarding curriculum and instruction of specific course content. Co-teaching is a specific pedagogical practice utilized by instructors to increase efficiency and build an inclusive classroom (Potts & Howard, 2011). At its most foundational level, Diana Jr. (2014) defines co-teaching as two or more teachers working collaboratively to plan, organize, deliver, and assess the complexity of instruction within the classroom environment. Co-teaching, gaining its roots in the 1950's, made an emergence in general and special education classrooms in modern times. During the 1950's, educators were looking for an innovative approach to assess traditional assessment tools and their effectiveness in evaluating student learning outcomes. As a result, the idea to fuse the knowledge and practice of two or more instructors resulted in the original co-teaching model (Hanslovsky, Moyer, & Wagner, 1969).

As co-teaching formulated an innovative approach in producing student learning outcomes, special education instructors were reinventing the traditional make-up of their classrooms in order to increase effectiveness and efficiency of student learning outcomes. In such classrooms, co-teaching was introduced as a means to fuse the expertise of general and special education instructors to increase the learning outcomes of their students. In 2004, the Individuals with Disabilities Education Improvement Act [IDEA] was passed by legislation to allow students with disabilities to engage in a non-restrictive learning environment (Potts & Howard, 2014). IDEA placed emphasis on incorporating students with disabilities to learn with their peers in general education courses but failed to understand that placement in general education courses are not one-size-fits-all for students with disabilities.

Because success was found with co-teaching models in special education, general education classrooms adopted the use of co-teaching. In general education classrooms, the focus on measuring student learning outcomes became a source of accountability for instructors. The passing of legislation for the No Child Left Behind policy in 2001 revolutionized the structure of instructor lesson plans and formative and summative student assessments, and increased high-stake testing among students (Potts & Howard, 2014). The No Child Left Behind Act (NCLB) placed "an emphasis on increased funding for poor school districts, higher achievement for poor and minority students, and new measures to hold schools accountable for their students' progress" ("The new rules," 2014). The tradeoff for increasing funds and student opportunities was an increase in standardized testing within the public school classroom. Since the passing of legislation for IDEA and NCLB, co-teaching has become one of the most popular educational

delivery systems in the United States (Rea & Connell, 2005). Co-teaching meets the tenants of IDEA and NCLB due to its nature to provide an inclusive classroom, provides general education curriculum for special education students, incorporates the practice of highly skilled teachers, and promotes the inclusion of students with disabilities (Scruggs, Mastropieri, & McDuffie, 2007). In a current NCLB and IDEA co-teaching classroom, a focus on curriculum building is fused with an understanding of national legislation that places emphasis on passing standardized national and statewide examinations. With consistency in co-teaching models implemented within general and special education classrooms, educators can create quality assurance in curriculum development and pedagogical practices that produce positive student learning outcomes as public education shifts to include the practices of IDEA and NCLB.

Co-teaching Models

Effective co-teaching involves more than thoughtful planning, instruction, and evaluation of instructional approaches. Co-teaching, at its best, is a marriage between instructors that is built upon developing trust, modeling healthy communication, and implementing collaborative approaches to overcoming challenges and celebrating successes (Villa, Thousand, Nevin, 2004). Villa et al. (2004) outlines that instructors choosing to implement co-teaching within a classroom must agree to establish a common goal, share the same belief system, demonstrate parity in roles, and use a cooperative process when assessing interaction, interdependence, and performance of instructional techniques. If teachers and administrators decide to develop a co-teaching classroom, the consideration of the six models of co-teaching must be carefully considered. The six models include: (1) one teach, one observe, (2) one teach, one assist, (3) station teaching,

(4) parallel teaching, (5) alternative teaching, and (6) team teaching. To understand which co-teaching model functions best for instructors based on various characteristics, the models will be discussed in further detail.

In the *one teach, one observe* co-teaching classroom, one instructor teaches a lesson while the corresponding teacher observes the students (Potts & Howard, 2014). The observing teacher offers the opportunity to support the teaching instructor, often offering remedial attention to students that are struggling to grasp specific concepts from the lesson being taught. The teacher that assumes the role of observer may choose to collect data on one student, a group of students, or the entire class. While the collection of data can be viable for future planning and instruction, the observer may not be seen as a teacher by students in the classroom.

In the *one teach, one assist* co-teaching classroom, one instructor teaches the lesson while the other floats around the room providing assistance to individual or groups of students (Potts & Howard, 2014). This model of co-teaching can be referred to as supportive teaching, which is often favored by teachers that are new to implementation of co-teaching (Villa et al., 2004). While the supporting teacher can float around the room to provide assistance to students, the teacher may be viewed as an assistant or a not-as-equal teacher by the students in the classroom.

In *station teaching,* teachers share equal responsibility in implementing the lesson. In this classroom, stations are set up around the room that students rotate through and the teachers deliver concurrent instruction (Potts & Howard, 2014). Teachers may choose to implement a station where students work independently without the assistance of an instructor. This model of co-teaching allows instructors to plan and implement their

own lessons and encourages students to view them as sharing equal roles in the classroom. Station teaching requires teachers to view the physical layout of the classroom and noise levels to be potential drawbacks to this co-teaching model.

In *parallel teaching*, instructors teach the lesson to a small number of students. Normally, the teachers will divide the classroom into two or more smaller sections and will assign a section for each instructor to teach (Potts & Howard, 2014). Villa et al. (2004) find parallel teaching to be a suitable starting point for teachers that are new to co-teaching. In this model, teachers must be extremely comfortable with content of the lesson because the teacher-to-student ratio is significantly lowered. The instructor is unable to seek support from their co-teaching partner if inquires arise that they are unable to answer or attend to; thus, being familiar with teaching the content on their own is necessary to execute a successful parallel teaching model. Instructors must plan lesson plans to end at approximately the same time, ensuring instructors stay on pace during the lesson implementation. Noise levels may rise due to the nature of this co-teaching model, which should be warranted as a potential drawback.

In *alternative teaching,* teachers will choose to pull aside groups of students for additional instruction focused on enhancement of concepts, review of content, or remedial intervention to correct a specific issue (Potts & Howard, 2014). The intervention of small-group instruction allows students to have more one-on-one time with their instructor. Drawbacks to alternative teaching include the non-static, changing groups that form based on student needs. Non-static groups can be a potential cause for anxiety among students who are unfamiliar with their group mates. Instructors may deliberately

choose groups before engaging in alternative teaching to ensure success in group membership and engagement.

In *team teaching* classrooms, instructors equally share the planning, teaching, assessing, and responsibility for all the students in the classroom. Together, the instructors are considered a team because they both deliver instruction and move around the classroom (Potts & Howard, 2014). The key to team teaching is that co-teachers simultaneously deliver lessons, comfortable with taking the lead and being the supporter (Villa et al., 2004). Drawbacks to team teaching include the students being shared between instructors within the classroom, rather than having one instructor taking ownership over the students within the classroom. If teachers do not set clear expectations for their role within the classroom, students may find this model to be confusing. Furthermore, teachers must establish mutual trust and respect with one another and their students in order to find success in this co-teaching model. Without these components, team teaching will be unsuccessful when implementation occurs.

When instructors develop a co-teaching classroom, they must assess their vision for teaching together. Co-teaching is a partnership among instructors. To create a successful vision for co-teaching, instructors must be comfortable with the co-teaching model chosen by all parties involved. Each model of co-teaching is unique, possessing characteristics that bring benefits and challenges to the classroom. When deciding which model fits the co-teaching pair comfortably, teachers need to consider their ease in planning together, possible time commitments, comfort with course content, and the size of the classroom (Potts & Howard, 2014). While team teaching requires instructors to understand the course content and commit to lengthy planning times, station teaching

would allow instructors with less planning time to engage in co-teaching models despite the inability to find reasonable co-planning time.

Co-Teaching in Higher Education

The field of education has been progressively changing in innovative ways that move beyond the traditional practices of teaching. With a focus on collaboration, the co-teaching model emerged within classrooms to foster a learning environment that focused on the individual needs of students (Friend, Cook, Hurley-Chamberlain, Shamberger, 2010). In college classrooms, the co-teaching approach has been scarcely implemented amongst professors, with fewer implementations amongst GTAs. In higher education, co-teaching models can be implemented to meet different goals from those of general and special educators. Beavers and DeTurck (2000) argue co-teaching challenges students' assumptions that "a college course [is] legitimate only when information comes from one source."

Harris and Harvey (2000) implemented co-teaching in a non-traditional student degree program to foster the development of student voice and critical thinking skills. They wished to emphasize collaborative learning rather than competition when speaking within the classroom. Co-teaching provides a format for students to assess more than one instructor with the experience, educational background, and personal ideologies that allow meaningful connections to arise between students and their instructors. The diversity of knowledge and experience that co-teaching instructors bring to the classroom increases the student learning experience. Students appreciate when their instructors examine theories and concepts differently, take different stances and argue from distinct positions while in the classroom (Harris & Harvey, 2008). Different perspectives and

teaching methods are linked directly to amplified student interest in subject matter, increased critical thinking skills, and greater class attendance records (Gaytan, 2010; Yanamandram & Noble, 2006). The matter of difference, while fostered in a controlled educational approach, provides a sense of empowerment for students to model within their own conversations with students and instructors in the classroom.

Sweigart and Landrum (2015) posit that limited empirical evidence has been collected regarding co-teaching within higher education classrooms. Of the studies conducted, none of the research has utilized group experimental designs to understand whether co-teaching is an evidence-based practice. McDuffie et al. (2008) suggests that co-teaching has the power to be an evidence-based practice with potential for higher implementation rates due to individualized instruction for struggling students, more positive reinforcement from teachers, increased student engagement, and individually targeted behavioral interventions. While qualitative research on co-teaching exists, studies have failed to examine the difference between co-teaching and traditional teaching and the student learning outcomes associated with these classrooms.

Potential for co-teaching as a training model. While some research exists on co-teaching in higher education, there is limited understanding of the implementation of co-teaching models by GTAs. Most GTAs enter the institution with little or no teaching experience. While GTAs can benefit from partnership with an experienced instructor or fellow graduate teaching assistant, these relationships are not being formed for the purpose of training instructors. Molott et al. (2014) find the lack of implementation of co-teaching models with GTAs to be problematic, claiming graduate students need opportunities for professional development, knowledge, and teaching skills. Walters and

Misra (2013) claim that there should be more of an emphasis on teacher training for graduate students. Mottet et al (2006) concur, claiming that GTAs are one of the highly overlooked groups in higher education research and training implementation.

Yet, there is merit in implementing co-teaching experiences with GTAs in higher education. Hunt and Weber Gilmore (2011) posit that graduate students in co-teaching relationships learn to develop course materials, manage classroom behavior, and develop an authentic teaching style. While some graduate programs offer training, others give graduate assistants the textbook and tell them to cover chapters from the book; thus not all graduate students are granted the opportunity for professional growth (Andrews, 1985). However, when programs implement co-teaching models as a training model for GTAs and eventually "shift roles from teaching assistant to lead instructor through supervision," GTAs have the potential to form a teaching philosophy and personal style and gain "confidence and competence as teachers" (Baltrinic, Jencius, & McGlothlin, 2015, p. 32).

Co-teaching can integrate pedagogical theory and classroom practice into the teaching experience of graduate assistants. When paired with the correct faculty mentor or co-teaching partner, GTAs share in collaboration of teaching and skills that may be beneficial to shaping future educators for success. Having established the lack in research related to GTAs in co-teaching experiences, it is now important to examine the benefits and drawbacks of co-teaching from the perspective of teacher and student.

Teacher Perspectives on Co-Teaching

When implemented successfully, co-teaching has been found to have multiple benefits in the classroom for the teacher. In a typical co-teaching classroom, the teacher-

student ratio greatly improves (Diana Jr., 2014). Typical co-teaching classrooms allow the teaching-student ratio to be cut in half (Sweigart & Landrum, 2015). Teachers also learn to grow professionally by collaboratively deciding upon goals to meet within the classroom and creating plans which help to meet those goals (Villa et al., 2008). Co-teaching offers avenues for instructors to model different pedagogical approaches in the higher education classroom (Harris & Harvey, 2000). Co-teaching is a learning opportunity for the instructors due to the potential to try different instructional styles, the increased opportunity for teaching practice, and reflexivity in the decision-making process. As a result, teachers gain increased motivation and job satisfaction from conversing over new topics and teaching approaches, sharing teaching activities, and integrating quality discussions within the classrooms (Villa et al., 2008; Potts & Howard, 2011).

Although there are benefits, co-teaching approaches also have drawbacks associated with their use based on time and instructor compatibility. First, co-teaching is more time consuming (Letterman and Dugan, 2004). A co-teaching pair must create a syllabus, lesson plans, and grading procedures collectively, which takes a dedication of time to complete. Once teaching is underway, one instructor may take longer to grade than the other. This lapse in time may cause an individual instructor to become frustrated with the difference in grading styles. Furthermore, it is important to recognize that conflict may arise between instructors or a power distance may become apparent (Letterman and Dugan, 2004). When hierarchical positions arise between instructors, the possibility of disruption in the co-teaching model may surface within the classroom. Lastly, administration, support staff, and other teachers may view co-teaching as an

educational fad, claiming that the traditional approaches to teaching are more effective than co-teaching approaches (Diana Jr., 2014).

Student Perspectives on Co-Teaching

There are a number of benefits associated with co-teaching from the perspective of students. Perhaps the greatest benefit of co-teaching comes from students receiving instruction from two or more instructors. At its core, co-teaching is a model of collaboration with students. Hinton and Downing (1998) posit that co-teaching classrooms can promote diversity by including members of different ethnic, racial, and/or cultural backgrounds. Diversity in academic disciplines can also be experienced if an interdisciplinary co-teaching partnership arises.

In addition, from a pedagogical standpoint, students experience increased communication skills and improved teacher-student relationships (Dugan & Letterman, 2008). In addition, with more instructors present within the classroom, students can ask instructors for help without diminishing the quality attention the instructor fosters towards other students' needs. With reduced student-teacher ratios, students experience an opportunity for higher classroom engagement, a reduction of off-task behavior, individualized instruction, more feedback that is positive and corrective, and more opportunities for praise or acknowledgment of positive behavior (Sweigart & Landrum, 2015). Following a co-teaching experience, students feel more prepared for future courses in their field when compared to students of traditional courses (Nead, 1995). Students have higher achievement levels, greater retention rates, and improved interpersonal skills (Johnson et al., 2000). Additionally, students experience development of analysis skills and judgement.

Co-teaching models are not always popular with students for a variety of reasons. Dugan and Letterman (2008) found that co-teachers who do not have clear goals in mind can insight frustration for students due to the inability to competently communicate and organize a collaborative setting. These classrooms can therefore come off as disorganized or unfocused. Blanchard (2012) posits that students may feel uncomfortable with co-teaching for various reasons, including student perception of co-teaching as disorganized and/or hard to follow, and having more experience with traditional teaching models over co-teaching models. Blanchard further argues that it is the duty of instructors to demonstrate actions that allow students to build comfort with a new style of teaching rather than the traditional approach.

Impact of Co-teaching on Learning Outcomes

While some instructor and student outcomes related to co-teaching have been addressed within research studies, empirical evidence related to student learning within co-teaching classrooms has been neglected (Sweigart & Landrum, 2015). They conclude "there is simply a dearth of empirical study of co-teaching in ways that allow for causal inferences about what student outcomes can be attributed to co-teaching" (p. 28). Due to this lack of evidence, this study aims to explore the effects of co-teaching on student affective and cognitive learning. Before examining the impact of co-teaching on learning outcomes, it is imperative to define affective and cognitive learning for the purpose of this study.

Affective learning. Wrench, Richmond and Gorham (2009) describe affective learning as "focusing on how teachers and students feel about each other, about the communication process, and about what is being taught and learned" (p. 2). Affective

learning involves a student's feelings, emotions, and acceptance of subject matter (Goodboy, Weber, & Bolkon, 2009). The foundation of affective learning requires an instructor to recognize students' attitudes, beliefs, values, emotions, and feelings as they relate to the knowledge and skills they are acquiring within the classroom (Mottet, Richmond, & McCroskey, 2006). There are five levels of affective learning: receiving, responding, valuing, organizing, and value complex (Krathwohl, Bloom, and Masia, 1964). Lower levels of affective learning involve students minimally receiving and responding to classroom information. Higher levels of affective learning involve student alteration of attitudes, beliefs, and values in ways that allow the student to critically examine their worldviews.

Students are likely to experience affective learning when they respond positively to ideas and information presented within the classroom. When students engage in behaviors that model their respect, appreciation, and value of the knowledge they are receiving, affective learning is occurring (Mottet, Richmond, & McCroskey, 2006). A variety of variables influence student affective learning, including teacher expression of verbal and nonverbal immediacy. Immediacy is the perception of closeness that exists in the student and instructor relationship. When immediacy is present, students are more likely to attend class, listen carefully, and are even less likely to drop out of higher education (Teven & McCroskey, 1997; LeFebvre & Allen, 2014). LeFebvre and Allen (2014) explain the influence of affective learning on student learning: "The student-teacher interaction in the classroom provides a critical influence on the student's sense of institutional integration in the educational setting, and the student's perception of

affective learning, directly influenced by teacher immediacy, is associated with student retention" (p.33).

Cognitive learning. While affective learning focuses on student feelings and attitudes, cognitive learning emphasizes student knowledge. Cognitive learning can be conceptualized as the comprehension of new information and the ability to retain such knowledge (Christophel, 1990). A taxonomy of cognitive learning created by Bloom, Engelhart, Furst, Hill and Krathwohl (1956) focused on the recall of information and the development of intellectual skills. Bloom et al. (1956) posits six hierarchical levels that describe the process of acquiring knowledge: recall, comprehension, application, analysis, synthesis, and evaluation. Lower levels of cognitive learning ask students to recall information, explain the concepts, and apply information in new and meaningful ways. Higher levels of cognitive learning ask students to analyze, synthesize, and evaluate new information. Through this hierarchy, students find ways to convert information to knowledge in meaningful ways.

Instructors can view student cognitive learning through two outcomes. Bloom et al. (1956) encourages instructors to tailor their learning objectives to be based on behavioral actions that can be completed, thus allowing the instructor to examine what the student can do based on the method of instruction being given. To focus on behavioral actions, Adams (2015) prompts instructors to write learning objectives with action verbs to indicate which method of assessment of skill and knowledge will best assess student cognitive learning. Educators may utilize Bloom's taxonomy to write learning objectives that require higher levels of cognitive skills. This encourages students to engage in critical thinking and transfer knowledge and skills that are correlated to

instructional content. Adams (2015) contends "that learning objectives in many training programs and curricula focus overwhelmingly on the lower levels of the taxonomy, knowledge and comprehension" (p. 153). This shortcoming must be considered by instructors if they aim to observe high cognitive learning outcomes with their students.

After examining literature surrounding co-teaching models, their implementation in higher education, and the benefits and drawbacks of co-teaching, I conclude there is a gap in the literature regarding the implementation of co-teaching models in Communication Studies courses in higher education. Furthermore, the literature neglects to examine co-teaching implementation among GTAs within higher education. In an attempt to fill this gap in the literature, I conducted a study examining the benefits and drawbacks of co-teaching from both teacher and student perspectives. The subsequent chapters will explore methods used, the findings of qualitative and quantitative components of the study, and implications of the findings.

Chapter 3

Methods

The purpose of this study was to examine student and GTA perspectives on co-teaching models within higher education classes. More specifically, I aimed to discover the benefits and drawbacks of co-teaching versus traditional teaching and examine the impact on student affective and cognitive learning outcomes. The following research questions were examined:

RQ1: From the perspective of GTAs, what are the benefits and drawbacks of co-teaching versus traditional approaches?

RQ2: From the perspective of students, what are the benefits and drawbacks of co-teaching versus traditional approaches?

RQ3: Do students perceive higher levels of cognitive learning in co-taught or traditional classrooms?

RQ4: Do students perceive higher levels of affective learning in co-taught or traditional classrooms?

In this chapter, the methods used in this study are detailed. The sections that follow include 1) the co-teaching course design, 2) the data collection process, 3) procedures for interview and survey instruments, and 4) the method used to analyze collected data.

Co-Teaching Course Design

The vision for researching co-teaching models in the higher education classrooms in the communication field arose from my personal interest and experience with the topic. In fall 2017, I began co-teaching the basic Communication Studies "Fundamentals of Communication" course with a fellow GTA at my university. We wanted to approach the

co-teaching classroom with a focus on culture, thus we designed curriculum and activities that related to development of self-awareness and cultural competency. With guidance from the basic course director, we created two distinct classrooms of students: my colleague had an open enrollment course that was filled predominantly with American students, while my classroom was reserved only for international students. We designed a course structure that had our students meet in their designated classrooms on Tuesdays and meet in the co-teaching classroom on Thursdays. Through this approach students were allowed to learn course content in their individual sections during the first class session per week, while interacting with the content in the context of a co-taught classroom on the second class session per week.

In relation to co-teaching models, we implemented the team teaching approach to co-teaching. As instructors of this course, we equally planned, taught, and took responsibility for the students in our classroom. However, with one exception, the assessment of our students was not shared, but rather done on an individual basis. The only instance in which we shared grading responsibility was for our students' final group presentations, as the students were grouped with members from both my partner's and my section. Because this approach to grading was different than usual, we were candid with the students regarding the grading procedures for the group presentations. Thus, the open communication worked nicely in preparing our students for anticipated grading procedures.

While teaching, we considered ourselves a team. We would often high-five one another and share stories of our collaboration with our students, thus demonstrating the strategic planning we put towards creating the course. During instruction, we would

simultaneously deliver lessons, comfortable with taking the lead at times, and being in the supportive role at other times. Based on our strengths and weaknesses as instructors, we would mindfully decide which of us would deliver content. Frequently, we would yield discussions and questions by building on content or comments made by each other.

To give a full and accurate depiction of the co-teaching experience, I kept a reflexive journal to record my experiences of co-teaching in the classroom. Along with that reflexive journal, findings from qualitative interviews with three GTAs with co-teaching experience will be shared. Finally, survey data from students is included. Together, this data is used to answer the research questions posed for this study, which pertain to the benefits and drawbacks of co-teaching from the perspective of GTAs and students. These mixed methodological approaches, including data collection, instrumentation, and methods of analysis are explained below.

Data Collection

Recruitment. Due to the involvement of human participants in this study, approval to conduct ethical research was granted from the Institutional Review Board (IRB) from Minnesota State University, Mankato. Research participants, including GTAs and students, were then recruited. GTAs were recruited through known-group sampling. Known group sampling is the "selection of events from groups that are known to possess a particular characteristic under investigation" (Reinard, p. 447, 2008). Recruitment for GTAs occurred via e-mail; the recruitment script was sent to current graduate assistants from Minnesota State University that had experience with co-teaching methods. Three research participants volunteered their time because they identified as GTAs at Minnesota State University, Mankato with co-teaching experience. Individuals interested

in being interviewed corresponded via e-mail to set up a convenient interview time. Each potential interviewee received confirmation of an interview time and a copy of the IRB approved consent form. Following verbal consent, interview participants were asked to sign a consent form prior to the start of the interview.

Following the completion of interviews, instructors that were currently in a co-teaching experience were asked for permission to recruit their students to be participants in the study. This method of recruitment, known as snowball sampling, is the "selection of events based on referrals from initial informants" (Reinard, p. 447, 2008). Only one GTA interviewed was currently instructing in a co-teaching classroom. To gather participants for the completion of surveys for co-teaching classrooms, the researcher attended the class proposed by the interviewee to read the recruitment script and distribute consent forms to complete before participation. Consent forms were collected from students before interested participants were contacted about survey procedures. Students interested in the study were given a subject ID and emailed an anonymous survey through Qualtrics to complete.

For comparison, the researcher wanted to gather a sample of responses from students enrolled in traditional classrooms. The researcher used convenience sampling to recruit a control group of students to participate in this study. Convenience sampling is the "selection of events that are most readily available" (Reinard, p. 444, 2008). The researcher sent an e-mail to her colleagues, specifically GTAs, within the Communication Studies department at Minnesota State University, Mankato to provide recruitment for student participants. Through e-mail, an instructor responded with interest for the researcher to introduce the study to her class and a time was established for the

participation opportunity to be presented. The researcher attended the class proposed by the GTA to read the recruitment script and distribute consent forms for students to complete before participation. Consent forms were collected from students before the researcher corresponded for further participation. Students interested in the study were given a subject ID and emailed an anonymous survey through Qualtrics to complete.

Participants. Three GTAs from the Communication Studies Department at a mid-sized Midwestern university were interviewed. The instructors interviewed all had experiences with co-teaching. Two of the instructors had co-taught with an experienced instructor, while the third participant had co-taught with another graduate teaching assistant. Of the three research participants, one interviewee identified as a White, female instructor, one identified as an African American, female instructor, and one interviewee identified as a Bangladeshi, male instructor. In addition, all research participants had college teaching experience in traditional and co-teaching classrooms.

The survey on student perspectives of co-teaching models was completed by 36 undergraduate students enrolled in the basic communication course. The basic communication course was selected because it is taught by GTAs to undergraduate students. Seventeen of the student participants were enrolled in a co-teaching classroom. The other nineteen Student participants were enrolled in a traditional classroom. Student participants from both co-teaching and traditional sections included 14 female participants, 19 male participants, and 3 participants that did not disclose their gender.

Procedures

Interviews. Three interviews were conducted for this project; two of them were held in person, and one was conducted via a phone call. Interviews were conducted at a

location and time chosen by the interviewee to ensure convenience and privacy. Before beginning the interview, consent forms were collected by participants. Notes were taken during the interview to record important themes or topics that emerged from interviewee responses. All interviews were unstructured. Unstructured interviews rely on a list of questions to guide the conversation but have freedom to move beyond the constructed set of questions (Reinard, 2008). To adhere to unstructured interviews, the researcher worked from a list of interview questions to frame the direction of the interviews (see Appendix A), but following an interviewee's response to a question, the interviewer may paraphrase the response or ask a new question for clarification. This approach allowed the interviewee to finalize his/her thoughts before proceeding to another question within the interview process. It also helped to ensure more thorough responses to the research questions.

Reflexive journal. Because I had experience as an instructor in a co-teaching classroom, I felt it important to include my perceptions of co-teaching in the form of a reflexive journal. Reflexive journals are used to expand on learning experiences, prompting an individual to reflect on a range of viewpoints and perspectives. Commonly used in the field of education, Alexandrache (2014) claims the purpose of reflexive journals is to allow "the expression of the feelings and the attitudes manifested," (p. 22). Alexandrache argues that because reflexive journals involve self-evaluation, they can also be a part of learning, especially if they "emphasize the conceptual development of the things learned during the psycho-pedagogical classes and on the mental processes developed during the teaching practice" (p. 22).

There are two types of reflexive journal approaches, including simple and elaborate reflexivity. For this study, I engaged in elaborate reflexivity, which is defined as data analysis "in which one relates to others and the way in which one personal experience is compared to another or to the experiences of others, to one's own opinions or principles" (Alexandrache, 2014). In both simple and elaborate reflexivity, the purpose of the journal is to assess the degree to which the instructor's experiences contribute to the learning environment. In using elaborate reflexivity, I examined the similarities and differences between my experiences and the observations of the GTAs in this study. In this way, my voice serves as another participant, contributing to the body of knowledge on the benefits and drawbacks of co-teaching. In addition, I hope to offer additional analysis through examination of the comparison between my experiences and those of the GTA participants in this study.

Survey instrumentation. The creation of survey instrumentation was done with two different participant groups in mind—students in co-teaching classrooms and students in traditional classrooms. The survey instrumentation for co-teaching and traditional classrooms consisted of open-ended questions, two sub-scales of the Affect Assessment Instrument to measure affective learning, and the Cognitive Learning scale to measure cognitive learning (See Appendix B). These measures are discussed in further detail in the following subsections.

Open-ended questions. To assess student perceptions of co-teaching approaches in the college classroom, open-ended survey questions were used. Participants in both co-teaching and traditional classrooms were asked to evaluate classroom approaches that were effective and ineffective. They examined approaches their instructor(s) took to

demonstrate effective teaching and areas in which the instructor(s) was lacking skill. To draw connection to Communication Studies, students examined how their instructor modeled effective communication in the classroom and how they facilitated communication behaviors among their students.

Affect toward instructor. To assess students' perceptions of affective learning, two sub-scales of the Affect toward Instructor (ATI) Instrument developed by McCroskey (1994) was utilized. Richmond and McCroskey (1992) argue that affective learning is a more valid indicator of instruction effectiveness than cognitive learning outcomes. The scale has 16-items for assessment of student affect towards the class and affect toward the instructor. McCroskey (1994) reports high internal reliability of this instrumentation, with an average Cronbach's alpha at .90. Additionally, the face validity of the scale is high as it is a general evaluative tool for affective learning in research (e.g., Christophel, 1990; Chory & McCroskey, 2009; Sanders & Wiseman, 2009).

For this study, only two of the four sub-scales of the ATI were used: 1) Affect toward Instructor Scale and 2) Affect toward Taking Classes with this Instructor Scale. The two four-item Likert scales allow students to respond using a range from 1 to 7, with "7" indicating high levels of affect and "1" indicating low levels of affect. For this study, the ATI was deemed reliable due to a Cronbach's alpha of .93. Furthermore, alphas were computed for each sub-scale used in this study. For the Affect toward Instructor sub-scale, a Cronbach's alpha of .83 was reported. For the Affect toward Taking Classes with this Instructor sub-scale, a Cronbach's alpha of .97 was reported.

Cognitive learning scale. To determine students' perception of cognitive learning, the Cognitive Learning Scale (CLS) developed by Richmond, Gorham, and

McCroskey (1987) was administered to student participants. This scale was developed to assess cognitive learning in a way that eliminates student bias of learning in a course, often because students are required to take courses on topics about which they are not interested in. The 2-item Likert scale asks students to report the amount they feel they learned in the current course compared to the amount learned in an ideal course. Response options ranged from 0 (student learned nothing) to 9 (student learned more than any other class they have had). The score from the first response was subtracted from the score of the second response to obtain a "learning loss" score. The "learning loss" score numerically defines the quality of learning a student perceives to be gaining from their target instructor, thus measuring cognitive learning outcomes. Richmond, Gorham, and McCroskey (1987) report an estimate of alpha reliability was not possible because the instrument consists of just two items. However, in their pilot study, they report test-retest reliabilities of the instrument ranging from.85 to .88.

Methods of Analysis

Qualitative content analysis. Content analysis is a method of analysis that evaluates written, verbal, or visual communication messages (Cole, 1998). As a research method, content analysis is systematic and allows the researcher to describe phenomena. Researchers utilize content analysis to condense words into fewer content-related categories that share the same meaning (Cavanagh, 1997). Elo and Kyngas (2008) further posit "The aim [of content analysis] is to attain a condensed and broad description of the phenomenon, and the outcome of the analysis is concepts or categories describing the phenomenon" (p. 108). The concepts, otherwise known as categories, allows the researcher to build a model, conceptual map, or conceptual system to support their work.

This process of analysis is ultimately used to develop an understanding of communication and its critical processes (Cavanagh, 1997).

The process for qualitative content analysis is complex in its processes, but the position of the researcher allows the process to become more streamlined. For this study, the researcher utilized inductive content analysis due to having limited former knowledge about the phenomenon (Elo & Kyngas, 2008). Chinn and Kramer (1999) posit "an approach based on inductive data moves from the specific to the general, so that particular instances are observed and then combined into a larger whole or general statement." The researcher analyzed the open-ended student responses from the surveys and the transcribed interviews with an inductive approach. To ensure quality data analysis, the researcher engaged in three phases of content analysis including 1) preparation for analysis, 2) organizing, and 3) abstraction.

The preparation phase of content analysis requires the researcher to select a unit of analysis, often a word or a theme. Themes were chosen as the unit of analysis for this study. Additionally, the researcher must decide whether to consider the manifest or latent content or both. The scope of latent content is analyzing the nonverbal communication associated with the data collection process, such as sighs, silence, and posture (Elo & Kyngas, 2008). To best fit with the purpose of this study, manifest content was chosen for analysis. Once the researcher decides on the unit of analysis and type(s) of content to explore, he/she must make sense of the data in order build familiarity prior to analysis. Reading through the written material several times will allow the researcher to become immersed in the data.

After the preparation stage, the researcher can organize his/her data through inductive or deductive content analysis approaches. To code both the qualitative student response data and the GTA interview data, the researcher chose to use an inductive approach with the three stages defined by Elo and Kyngas (2008): open coding, categorization, and abstraction. Open coding involves recording notes and headings in the text while reading it. Therefore, the researcher read through the written material multiple times, writing down as many headings as necessary in the margins to describe all aspects of the data content. After open coding, the researcher began to create lists of categories to be grouped together based on the nature of the comments. This allowed similar themes to be grouped into similar, yet broader, categories. In doing this, Dey (1993) posits that creating categories does not simply bring together similar concepts or themes; rather it allows phenomena to be classified as belonging to a group that can be compared or contrasted to different categories.

Lastly, the researcher engages in abstraction of data before reporting results. Elo and Kyngas (2008) describe abstraction as the formulation of a general description of a research topic through generating categories. To engage in abstraction, the researcher created categories using content-characteristic words. For example, student participants' comments on their experiences in co-teaching classrooms resulted in a variety of content-characteristics words and sayings, including "playing games," "real life approaches," and "interacting in groups." GTA participants offered themes related to "teaching styles," "chemistry of co-teaching partners," and "the lack of co-teaching knowledge." Results of the coding of the qualitative student responses from the surveys and the interview data will be shared in the Results section.

Quantitative analysis. To analyze the quantitative data collected for this study, independent sample t-tests were used to test for significant differences in the means between student participants in the co-teaching classrooms and student participants in the control group on measures of affective and cognitive learning. Additionally, effect sizes were reported to allow a better understanding of the t-test results. An effect size of $r = .2$ indicated a small effect, while $r = .5$ indicated a medium effect and $r = .8$ indicated a large effect.

Chapter 4

Results

This chapter discusses the findings of the present study in response to each of the four research questions. Themes that emerged from the coding process of the interviews and qualitative student data will be shared. Sample participant responses will be given to provide support for the themes. To protect the anonymity of the interview participants, pseudonyms are used. In addition to the qualitative data, results of the t-tests used to measure differences in affective and cognitive learning between student participants in the co-teaching classroom and student participants in the control group will be shared.

Research Question 1: Benefits and Drawbacks of Co-teaching per GTAs

RQ1 asked: "From the perspective of GTAs, what are the benefits and drawbacks of co-teaching versus traditional approaches?" In response to RQ1, four themes surrounding benefits were drawn from data, while two drawbacks emerged. These benefits and drawbacks are discussed below.

Benefits

Four themes emerged from the perspective of GTAs as pertinent to the benefits of co-teaching. These included a variety of teaching approaches, the wealth of instructor experiences, instructor chemistry, and instructor approachability.

Variety of teaching approaches. A variety of teaching approaches were discussed as a benefit to co-teaching because this variety contributed to better teaching. Participants discussed how such variety led to compensation for their own instructional weaknesses, enhanced instruction, and personal growth, as described below.

For the participants of this study, the benefit of having a variety of teaching approaches present in the classroom helped the individual instructors to compensate for their individual weaknesses. During the interviews, GTA participants found the difference in teaching styles to be a benefit of co-teaching. Having another instructor present in the classroom allowed GTAs to partake in a co-teaching relationship with an individual that has different strengths or weaknesses as an instructor. For example, in response to a question pertaining to the characteristics necessary in choosing an individual with whom to teach, Lillian replied "I know there are things that I struggle with in the classroom on a personal level… and I feel like the partner that I was granted the opportunity to work with was really good at helping to cover and balance all those things." She further claimed, "There were a couple instances when we were together, and I was watching my partner and I was like 'wow! If I could just be able to do that." Lillian's perspective upholds the idea that co-teaching offers more than one teaching style in the classroom, seemingly beneficial to the other instructor and students. Peter's comments offer a similar perspective. In referring to his initial days of teaching with his partner, he states, "At that time, I was not sure how I should address the issue [of lack of experience] or how well I trust myself with this teaching environment." For Peter, the comfort with co-teaching came as a process, but the comfortability with teaching in a new environment was made easier when he was placed with an experienced co-teaching partner.

For the GTAs, having more than one individual teaching content allowed for enhanced instruction. Enhanced instruction may include more ideas during course preparation, clarification on lesson planning, stronger classroom activities, and deeper

discussion prompts during class discussions. In my personal experience with co-teaching, the development of lesson plans, activities, and discussions were fundamental in my growth as an instructor. My co-teaching partner and I would bring former lessons from previous semesters to our preparation time, only to leave with an advanced version of our former lessons and activities. For example, we modified a game of cultural bingo for our students. Before we worked on the activity development together, the cultural bingo template we were using was ethnocentric towards American culture. However, after working alongside her, we developed a game of cultural bingo that provided insight into global perspectives that represented both domestic and international students in our classrooms. Having her help provided an understanding of the need to change our classroom materials to fit the changing needs of our students. Lillian further confirms this idea when talking about her experience modifying an activity with her partner:

> "We kind of went through and changed some of the ideas in the blocks and ultimately the students needed to work together [to complete the activity]. . . and you know, I think in doing collaborative things and activities like that, that's one thing for sure that I'm going to bring into the classroom [after the co-teaching experience]."

As it can be viewed from my own experiences and the perspective of Lillian, having another individual to enhance teaching materials allows instructors to break outside of their comfort zone and utilize new materials they may not have created individually.

Finally, GTAs believed their exposure to a variety of teaching approaches contributed to personal growth as an instructor. When explaining the need for higher education instructors to adhere to university standards, Diana explained that co-teaching

allows for you to “adhere to those standards but still develop a sense of self and your own style of teaching.” She explains the idea of upholding standards, “Part of it is like in higher education there is this level of having to cater to . . . the goals of the university or the classes being offered.” As a co-teaching graduate assistant, she believed her role in the classroom allowed her to teach prescribed content in a way that exposed her authentic teaching style which was different than her co-teaching partner. Peter echoed Diana’s thoughts in his interview, claiming his co-teaching partner gave him flexibility in his teaching. He fondly remembers being told "you can go your own way and you can teach it on your own" from his co-teaching partner. In the co-teaching relationship, Peter felt the opportunity to expand on his teaching style and experience creative approaches in the classroom. The interviewees believed having another instructor in the classroom with them allowed for development in their own teaching styles, as they were able to observe the teaching styles of their partners and improve on their own approaches simultaneously.

Wealth of instructor experiences is good for the students. A wealth of instructor experiences was discussed as a benefit to co-teaching for two reasons. First, differing experiences contribute to student learning. Second, differing experiences offer diverse perspectives in the classroom. Both are discussed below.

Of the GTAs interviewed for this study, two had experience in a co-teaching relationship with a veteran instructor, while one interviewee had experience with another graduate teaching assistant. In all scenarios, the GTAs found the differing instructor experiences to be beneficial to student learning. For example, when asked about the benefits of co-teaching in the basic communication course, Diana said “If we are co-teaching, you have more of an opportunity to show these students there are multiple ways

to approach communication." Providing students with multiple perspectives of viewing course content allows students multiple ways to analyze information and come to their own conclusions, often seeing more than one side to an argument. Peter's words are another testament to this idea: "If one teacher gives an example from one perspective, and the other instructor gives an example from their perspective, students understand that one thing can happen in different ways." There were even instances when I was co-teaching and my partner was asked a question for which she did not have an answer. Due to my knowledge in the subject matter, my partner asked for my help and directed the class attention towards me. The wealth of different experiences between my partner and I provided the students with the opportunity to understand how our experiences can shape our understanding of communication.

The GTAs also discussed the ability to offer diverse perspectives on course content when co-teaching. For example, when reflecting on her experience of instructing students, Lillian explained the importance of having more than one perspective in the classroom:

> "Being that I am an American, I've been in America my entire life, I don't know anything but America. But you come into these [co-teaching] situations with people from all walks of life, from all corners of the earth, and I think that we go based off the assumptions of ourselves and one another. We just assume we're all right with everything."

With more than one instructor in the classroom, navigating difficult conversations or explaining connections between course content and real-life scenarios is more beneficial to students because they are exposed to various life experiences. For example, Diana

claimed that "having two instructors provides them [students] different expertise on the same topic . . . a broader understanding than they would have had with just one instructor." Having more than one instructor provides different experience and expertise levels. For Peter, an international instructor, the presence of his perspective is fundamental in the classroom. He noted, "I always try to give examples from the international perspective because I am more familiar with international issues. However, local teachers try to give examples from the local culture and that is also obvious." Peter clarified the importance of life experiences in demonstrating the connection between communication concepts and life applications. Whether instructors have different nationalities, genders, religions, or other aspects that make them diverse, they all have different life experiences that can be brought into the classroom.

Instructor chemistry. When the interviewees were asked about the characteristics necessary in finding a co-teaching partner, they found chemistry to be a necessary component in the co-teaching process. For the instructors interviewed, chemistry was largely present in the preparation and implementation of co-teaching. Lillian explained "If you don't have chemistry right off the bat, the students will pick up on it." Fortunately, in my case, I had a prior relationship with my co-teaching partner. We had worked together on academic research, were speech and debate coaches at our university, and even lived together as roommates. Having chemistry was easy to establish, because we already had it before our co-teaching experience began. When we taught together, our students knew we enjoyed each other and the collaborative process of co-teaching. When strong and healthy, the chemistry of co-teaching partners can enhance the learning environment, yet it is the duty of the instructors to maintain a healthy

classroom for the instructors and students. Lillian added the following piece of advice for co-teachers: "You got to have someone that you can actually like to be around. One of the things I was taught was that if you can see yourself not being in a relationship with that person and being all right, then you shouldn't go through with it."

For Diana, having a teaching partner that has the same qualities and interests as you is important to maintain chemistry in the classroom. She explained her new co-teaching partner, “She’s a woman, she studies queerness, she’s on my level academically . . . like sameness in a sense.” In addition to compatible personalities and academic interests, co-teachers that maintain similar schedules can enhance instructor chemistry. When Diana worked with an established faculty member, negotiating times to meet was difficult. When working with another GTA during the co-teaching experience, she explained that coordinating schedules is different. She noted, “Let’s say you’re co-teaching with an instructor who is home seven days of the week, but a grad student, you’re basically on campus with them all the time. You can work with that.” She further explained “If you’re not working closely and collaborating with your co-teaching partner, it becomes this thing where it doesn’t seem even seem like the same class.” For GTAs, having chemistry with their co-instructors can influence whether the co-teaching experiences will be a positive one.

Approachability. During the interview, the participants were asked to speak to the benefits experienced by students in co-teaching classrooms. From the perspective of GTAs, there are a variety of student outcomes from co-teaching when it comes to providing avenues for instructor approachability in the classroom. Having more than one instructor in the classroom adds another body in the room for students from whom to

seek help or clarification. Diana stated having two instructors allows for “more options in terms of who [students] can even talk to. I think they get two people to go to with issues.” For Diana, who co-taught with a male partner, she explained "I had a lot of women come up to me... and they would only talk to me because I was a woman and I was a little bit more approachable." Having more than one instructor in the classroom allows students more opportunity to seek help from an instructor they perceive to be approachable and view as credible.

For Lillian, student approachability with the instructor allowed for positive outcomes to occur. She believes co-teaching will help new college students and increase retention. She stated "The really good thing about co-teaching in the 100-level course is that while you have these novice instructors coming in, you have a lot of first year students as well, and you can better assess those needs. I mean, it wasn't too long ago where I was an undergrad myself.” She continues to discuss how having two instructors to pay attention to students needs has the potential to lead to higher retention rates. She noted "If there is a way for us to get more co-teaching involved in the basic course here on campus, I think that would really help across the board with students."

From my own experience, approachability played a huge role in building relationships with students in the classrooms. During my co-teaching experience, we had a unique class structure that involved 25 international students and 25 non-international students. Co-teaching allowed the students to engage in collaborative learning with individuals from cultures different than their own. While some students remained apprehensive about the process, others fully embraced the opportunity. By the end of the

semester, students in the course were exploring other cultures, challenging their worldviews, and making friends with their classmates.

During the immersion of group work and building cultural understanding, students would approach me and my co-teaching partner with questions related to their lack of understanding of course content or other cultures. We would often meet with students individually to discuss their needs and concerns related to working with group members from different cultures than their own. Had our presence been unwelcoming, our students would not have viewed us as approachable. Being able to provide a space for diversity and inclusion within the classroom was helpful to students, yet I do not believe this would have been possible without my co-teaching partner and I allowing our students the space to voice their concerns and build relationships with us both in-and-out of the classroom.

Drawbacks

Although there are certainly benefits to co-teaching from the perspective of GTAs, it is also important to explore the drawbacks. There were two themes pertinent to drawbacks from the collected data, which include power distances and unfamiliarity with co-teaching approaches. These themes will be discussed below:

Power distances. For both interviewees that were in co-teaching relationships with an experienced instructor, they noticed power differences present in their co-teaching relationship. Peter explained that he had little role in the creation of his co-teaching course. He said "[my co-teaching partner] nicely explained my role, what would be my role in co-teaching, and how he can help me." Outside of this conversation, Peter had small amounts of agency when designing and implementing the co-teaching course.

He noted “I was slightly confused and feared how I would work with him and how I would teach the students.” Diana also described an experience of having little agency in the classroom when she states, "To some extent if you have all of this content that is given to you, there is only so much you can do with it.”

Diana examined power distances in further detail in her interview. Upon examining the characteristics she looks for in a co-teaching partner, she stated "I think that often times when there are power distances and those power constructs with these two people, it can be very difficult to navigate." She clarified from her own experiences, "My experiences as a woman instructor teaching juxtaposed to a man teaching was a really weird place to navigate." Being placed in a position with less power than her counterpart made Diana exert large amounts of energy that left her exhausted by the end of her co-teaching experience. She stated co-teaching is “actually so much more emotional and intellectual labor to cater your own identity to [your partner’s] identity.”

In the interview with Lillian, who co-taught with another graduate teaching assistant, conversations of power distance were absent. Perhaps this absence was due to the nature of her co-teaching partnership with someone of equal power to her. In contrast, Diana and Peter posited their co-teaching experiences would have been different had they instructed alongside another graduate teaching assistant. From my experience of working with another graduate teaching assistant, the power distance was not present in our relationship. There were moments when conflict would arise or one would refute the other's idea, yet these conversations are bound to happen during a collaborative teaching experience. Rather than simply telling my partner that one approach works better than another approach, we would collaboratively weigh the pros and cons of our differences to

find the best approach to implement in the classroom. When GTAs were paired with veteran instructors, they experienced moments where they were told the right approach from the wrong approach with little collaboration involved in the process. These power differences did not arise in our collaborative planning processes.

Additionally, students appeared to be cognizant of the power shared among co-teaching partners. In my experience working with a partner at the same instructional status in the classroom, both of our perspectives were validated by the students in our class because they viewed us both as credible. Peter believed that co-teaching between GTAs would have proven beneficial because GTAs have similar positions within academia in terms of autonomy and experience. He stated, "For graduate teaching assistants, both are students, and both don't have that much experience. In a sense, you have the same mentality, the same type of preparation style, and understand the balancing issue." Being viewed as having the same power or agency in the classroom as your co-teaching partner allows the potential for students to view both instructors as credible and to seek clarification from both instructors, rather than approaching one instructor when problems or concerns arise.

Lack of familiarity with co-teaching approaches. The first question in the interview asked GTA participants to explain the components of co-teaching with which they were familiar. The three participants explained they had no formal knowledge of co-teaching before engaging in a co-teaching experience. Based on her experiences with co-teaching, Diana defined this style of teaching as "working for somebody who has higher teaching experience than you." Her explanation of this phenomenon was certainly

shaped by her co-teaching experience with a large power distance between the two co-teaching partners.

Although the participants had little knowledge of co-teaching before engaging in an experience, they believed societal expectations limit co-teaching opportunities for GTAs. Lillian posited:

> "We assume within the society that we live in that we have to have someone with experience before they get involved in this project. I don't know why this project seems to demand more experience or attention. I'm not saying it shouldn't demand experience or attention, but I don't know if it has to."

Lillian's commentary illustrates the assumption that co-teaching partnerships must involve, at the very least, a co-teaching partner with experience in order to be viewed as effective. While co-teaching with a veteran instructor can be helpful in the professional growth of a graduate teaching assistant, Lillian believed the process can be implemented with two GTAs and does not require experienced instructors. Diana felt similar regarding the societal influences keeping GTAs from engaging in co-teaching experiences. She states, "I think there is this assumption that [GTAs] need more time to develop our specific concentrations and what we're good at. Like we are always stuck with the basic classes." She found being limited to basic courses did not allow for personal growth as an instructor or researcher, yet her co-teaching experience opened her up to the opportunity to teach higher level material to upper-level students.

Research Question 2: Benefits and Drawbacks of Co-teaching per Students

RQ2 asked "From the perspective of students, what are the benefits and drawbacks of co-teaching versus traditional approaches?" To answer this research

question, the qualitative data collected via survey for co-teaching and traditional classrooms was analyzed. From this data, themes emerged that supported the benefits and drawbacks of co-teaching in higher education from the perspective of students.

Benefits

Four themes emerged from the data as pertinent to the benefits of co-teaching from the perspective of students. These included: increased instructor perspectives, variety of teaching styles, increased communication skills, and unique approach compared to the traditional style.

Increased instructor perspectives. Students in both co-teaching classrooms and traditional classrooms completed survey questions pertaining to the benefits and drawbacks of co-teaching. Students in both samples found merit in having increased instructor perspectives in the classroom. This allowed students to hear different components of the lecture, discussion, or activity from a different voice. Another student observed the following benefit of instructor perspectives, noting "To me, any question asked was perfectly answered because it was always confirmed by the second person, so that is like two teachers answering one question." Even during moments of uncertainty between the instructors, students noticed the importance of different perspectives. For example, another student claimed, "It is good to have another teacher in the class so they can cover each other." When one instructor was uncertain about a student's inquiry or content material, he/she could rely on a co-teaching partner to produce an answer for the students.

Students from the traditional class added to the conversation of multiple perspectives, even if they did not have former experience in a collaborative classroom.

For example, one student made the following claim: "I would prefer collaborative teaching because I feel like it would help [students] focus on both teachers rather than having one professor talking the whole time. I also believe that each professor knows different information." Another traditional student explained a time in which her archaeology lab had two instructors. The student found co-teaching to be beneficial: "It helps to have more than one mind in the fold because sometimes they are able to present the material better than the other." Furthermore, students found positive instructor chemistry often led to a wealth of multiple perspectives being offered in the classroom, as the instructors would work collaboratively to offer their opinions or experiences in relation to course content.

Variety of teaching styles. Having two instructors in the classroom allowed students to experience different teaching styles. For example, one student said, "You get to learn from different teachers and therefore with different techniques." Another student claimed co-teaching "helped because [both instructors] had different teaching styles." While these students did not give specific examples that illustrate the difference in teaching styles between their instructors, they found merit in the co-teaching classroom structure. Another student explained that their co-teachers' effective communication styles with students "helped because they both had different teaching styles." One might expect different teaching styles to be confusing to students. However, even with a variety of teaching styles, participants found that the instructors worked together to streamline co-teaching processes to be organized and effective.

Students from co-teaching classrooms found merit in different teaching styles, whereas students from the traditional class were less likely to see the benefit of co-

teaching regarding different teaching styles. However, one student participant from a traditional classroom claimed "Not everyone teaches the same. I might enroll in a co-teaching course and find that both TA's don't explain things very well. But it is a chance that I am willing to take." While most traditional students did not claim different teaching styles as a benefit, they were curious to enroll in a co-teaching course and experience having more than one instructor. For example, one participant posited "I would be likely to take a co-teaching class because it would be cool to experience the teaching style and see what it is about." For the traditional classroom students, co-teaching offered a fresh perspective to teaching styles that they were eager to learn more about and experience in future courses.

Increased communication skills. The co-taught class used in this study focused on fusing an international student section with a domestic student section, with a special emphasis on building cultural competency. One student's words confirmed the utility of this structure for enhanced communication skills: "The co-teaching model was a really great approach and was a platform for international students to meet the American students and interact with them and learn about their native culture." Due to the collaborative learning approaches utilized in this co-teaching setting, students reported increased communication skills. Specifically, students reported the benefits of communication in small group activities, the increased likelihood to answer questions in class, and the feeling of having their voices heard in the classroom. For example, one student stated:

> "The co-teaching model enabled us to learn and have good communication. There was hesitation at first, but when we started talking it became effective as everyone was really helpful in everything, and interaction made it easier."

In addition to the experience of supportive communication, students felt having two instructors decreased the amount of nervousness surrounding classroom participation. Students claimed they experienced lower amounts of nervousness in the classroom because "students got comfortable with seeing a particular face more often." In addition, one student noted the "co-teaching model helps students easily say their own opinion." While students in the traditional classroom reported enjoyment with classroom activities and discussions, none reported an increase in communication skills or opportunities to increase these skills as a benefit of co-teaching. However, this could be due to a lack of experience in a co-taught classroom.

Alternative method offers fresh perspective. Traditional classrooms with one instructor are considered the norm in education, yet the students in co-teaching and traditional classrooms both discussed interest in the co-teaching approach as an alternative learning method. For example, one student claimed, "Most of the students have traditional types of classes, so I think it is good to have some [co-taught] classes … so that students can feel different than their other classes." This response illustrated the need to break from the repetitive nature of traditional teaching and implement a new teaching style that allows learning to be fresh and exciting. One student made the following contribution:

> "I think [co-teaching] fits my personality of learning … I think it is an interesting way to take a course and with co-teaching, I believe I have more resources and

professors to help me understand some materials for that course. Any opportunity I can get with a co-teaching course, I would most likely take it without hesitation."

Overall, students in traditional classes reported a high likelihood of enrolling in co-teaching courses. They stated that co-teaching classrooms seem like an interesting teaching approach but is one with which they do not have prior experience.

Drawbacks

Having discussed the benefits of co-teaching from student perspectives, the emerging themes related to drawbacks will be discussed. Students report two major themes related to drawbacks of co-teaching, including confusion of course structure and preference for traditional teaching methods. The following drawbacks will be discussed in detail below:

Confused by course structure. Co-teaching and traditional students found co-teaching courses to be confusing in the way they are structured. A student from a co-teaching classroom said he prefers traditional approaches in the classroom because "co-teaching can get overwhelming trying to follow both teachers instead of one." Another co-teaching student claimed the use of time in the co-teaching classroom was confusing when compared to traditional classrooms. This student explained, "I feel like the fact that we only did collaborative days on Thursdays kind of made it feel like we had 3 different classes. There wasn't enough time with other students." However, these comments were made by very few students since only a small percentage of co-teaching students preferred traditional classroom approaches over co-teaching approaches in the classroom.

For some traditional students, the idea of co-teaching seemed like foreign concept that would lead to confusion. For example, one student claimed the following: "Collaborative teaching can be confusing because each instructor has his/her own style of teaching; the students might lead to confusion if trying to listen to both instructors at the same time." Another student reaffirmed this idea, saying "I like traditional teaching because only one person is giving me information. When two people are giving me information, sometimes things become unclear as to what we're supposed to do." In fact, over one-third of the participants surveyed in the traditional classroom claimed confusion in co-teaching courses to be justification to not enroll in a co-taught course.

Dismisses traditional approaches. Students claimed a drawback of co-teaching was the fact that it contradicts traditional teaching and learning approaches that students with which students are familiar. A student demonstrated this concern in saying:

> "I do not want to experiment with my education. Therefore, I want to take classes like they have been taught for hundreds of years and how I grew up. Why spend all my life going to school only to get to college and have to relearn how the education system works?"

In addition, another student claimed "I have never been in a co-teaching class so I am unsure if I would like it or not. I just like the traditional [classroom] with a teacher. I feel like having two would make it overwhelming." While some students were certain they did not want to experience co-teaching, others were simply afraid to switch from the norm. One student claimed that while enjoying the co-teaching experience, he/she was simply unprepared to make the switch from traditional to co-teaching classrooms in the future. Another student claimed co-teaching was simply too chaotic when compared to

traditional classrooms, thus the desire to enroll in co-teaching courses was low. While students found merit in co-teaching, drawbacks were also present regarding their perspectives of co-teaching classrooms.

RQ3: Perceptions of Affective Learning in Co-taught vs. Traditional Classrooms

RQ3 asked "Do students perceive higher levels of affective learning in co-taught or traditional classrooms?" To answer this question, the ATI scale was utilized (McCroskey, 1994). As aforementioned, reliability for this scale, determined by Cronbach's alpha, was .93. An independent samples t-test was conducted to compare student affect toward instructor in co-teaching and traditional classrooms. There was a significant difference between the scores for student affect in co-teaching classrooms, $t(34) = 3.54$, $p = .001$ (see Table 1). The mean score for students in the co-taught classrooms ($M = 6.78$, $SD = .384$) was significantly higher than the mean for students in traditional classrooms ($M = 5.61$, $SD = 1.31$). Results suggest that students in co-teaching classrooms perceive higher levels of affective learning than students in traditional classrooms. Results indicated a medium effect size of $r = .518$.

Additionally, independent samples t-tests were run for the two sub-scales of the ATI scale used in this study. For the Affect toward Instructor subscale, there was a significant different between the scores for student affect toward instructor in co-teaching classrooms, $t(34) = 2.40$, $p = .022$ (see Table 1). The mean score for students in the co-taught classrooms ($M = 6.85$, $SD = .343$) was significantly higher than the mean for students in traditional classrooms ($M = 6.25$, $SD = .982$). These results suggest that students in co-teaching classrooms perceive higher levels of affect towards their

instructor than students in traditional classrooms. Results indicated a small effect size of r = .377.

For the Affect toward Taking Classes with this Instructor subscale, there was a significant different between the scores for student affect toward taking classes with their instructor in co-teaching classrooms, $t(34) = 3.68$, $p = .001$ (see Table 1). The mean score for students in the co-taught classrooms (M= 6.70, SD= .56) was significantly higher than the mean for students in traditional classrooms (M=4.97, SD= 1.86). These results suggest that students in co-teaching classrooms were more likely to re-enroll in another course with the same instructor(s) than students in traditional classrooms. Results indicated a medium effect size of $r = .532$.

RQ4: Perceptions of Cognitive Learning in Co-taught vs. Traditional Classrooms

RQ4 asked "Do students perceive higher levels of cognitive learning in co-taught or traditional classrooms?" The Cognitive Learning Scale was used to answer this question (Richmond, Gorham, & McCroskey, 1987). Because this is a 2-item scale, again, reliability estimates are not available. An independent sample t-test was used to compare "learning loss" in co-teaching and traditional classrooms. There was not a significant different between the scores for "learning loss" co-teaching classrooms, $t(34) = -1.81$, $p = .079$. The mean score for students in the co-taught classrooms (M= -.352, SD= 1.41) was similar to the mean for students in traditional classrooms (M=.368, SD=.955). These findings suggest that there are no significant differences in the level of cognitive learning in co-teaching or traditional classrooms.

Lastly, descriptive statistics were examined to determine the student likelihood of enrollment in a co-teaching course in higher education. Students in co-teaching

classrooms had a higher likelihood of enrolling in another co-teaching class than students in traditional classrooms. Of the students in co-teaching classrooms, 52.9% reported that they were extremely likely to enroll in a co-teaching classroom, 41.2% were somewhat likely, and 5.9% were somewhat unlikely to enroll in a co-teaching classroom. Of the students in traditional classrooms, 57.9% reported that they were somewhat likely to enroll in a co-teaching classroom, 21.1% were neither likely or nor unlikely, 10.5% were somewhat unlikely, and 10.5% were extremely unlikely to enroll. These findings suggest that students in co-teaching classrooms were extremely or somewhat likely to enroll in another co-teaching classroom, while students in traditional classrooms were neutral or somewhat unlikely to enroll in a co-teaching class in higher education.

Additionally, an independent sample t-test was conducted to determine the likelihood of enrolling in a co-teaching classroom. There was a significant different between the scores for the likelihood of enrolling in a co-teaching classrooms, $t(34)= 3.67$, $p = .001$ (see Table 1). The mean score for students in the co-taught classrooms ($M= 4.41$, $SD= .795$) was significantly different than the mean for students in traditional classrooms ($M=3.26$, $SD=1.04$). These findings suggest that students enrolled in co-teaching classrooms were somewhat likely to enroll in another co-teaching experience when compared to students in traditional classrooms. Students in traditional classrooms were neither likely nor unlikely to enroll in a co-teaching course. Results indicated a medium effect size of $r = .527$.

Table 1

Results of Independent Samples t-test and Descriptive Statistics

Scale	Classroom Type						95% CI for Mean Difference	
	Co-teaching		Traditional					
	M	SD	M	SD	*t*	*p*	LL	UL
Affect Toward Instructor	6.78	.384	5.61	1.31	3.54	<.001	.497	1.83
Affect Toward Instructor Subscale	6.85	.343	6.25	.982	2.40	<.022	.092	1.11
Affect Toward Taking Classes with this Instructor Subscale	6.70	.560	4.97	1.86	3.68	<.001	.777	2.68
Likelihood of Enrolling	4.41	.795	3.26	1.04	3.67	<.001	.513	1.78

Note. CI = confidence interval; *LL* = lower limit, *UL* = upper limit.

I have attempted to give voice to students and GTAs that are familiar with co-teaching methods. After examining the results of this study, the following chapter will discuss results in answering the research questions. Furthermore, implications, limitations, and possibilities for further research will be explored.

Chapter 5

Discussion

In this chapter, implications of the findings will be discussed, along with limitations of the study and opportunities for future research. Qualitative findings of this study suggest that GTAs and students in higher education value the diversity of opportunity presented by co-teaching models in higher education. While the findings were significantly positive towards the implementation of co-teaching models, GTAs and students also found there to be drawbacks in co-teaching models. Quantitative findings of this study suggest that students in co-teaching classrooms have higher levels of affect towards their instructor(s) when compared to students in traditional classrooms. However, there were not significant differences in perceptions of cognitive learning among students in co-teaching and traditional classrooms. Furthermore, findings indicated that students in co-teaching classrooms were significantly more likely than traditional students to enroll in a co-teaching classroom.

Implications

There are several implications pertaining to the findings of this study, especially for GTAs and students in higher education. Specifically, the experiences shared with me by the participants of this study led me to consider what this study suggests regarding co-teaching relationships in higher education. Responses of the participants demonstrated the critical role GTAs play in academia, and the importance of the implementation of this instructional approach for the benefit of graduate assistants and students within their classrooms.

The data analyzed for this study offered perspectives on the importance of implementing co-teaching models in communication classrooms, both from the perspective of GTAs and students in higher education. Specifically, these perspectives suggested the need to consider the potential of co-teaching as a tool to encourage reflexivity, to increase opportunities for student retention, to increase opportunities for student learning, and to implement co-teaching as a training model for GTAs.

Co-teaching as a tool to encourage reflexivity. Results of this study suggested that co-teaching may encourage reflexivity for instructors in terms of personal examination and mentoring, and for students in terms of educational approaches that best suited their needs.

The responses I gathered from the GTA participants in this study suggested the benefits of co-teaching as a tool for encouraging self-reflection in their teaching methodology. Simply put, co-teaching allowed for personal and professional growth. In their interviews, GTAs talked about the benefits of co-teaching that allowed for reflection of their strengths and weaknesses as an instructor. They often found that their individual teaching skills served as a successful teaching model for their partner, and vice versa. In other words, if a teacher lacked skills in a potential area of instruction, the opportunity to observe such skills used by a co-teaching partner helped that teacher to grow, and perhaps to mirror such skills. This idea is echoed in previous research which finds that regardless of whether a GTA is paired with another GTA or a faculty member, he/she will have a variety of experiences that he/she would have been unlikely to have prior to a co-teaching experience (Walters & Misra, 2013). While it is common for GTAs to receive feedback on their instructional skills by a supervisor, co-teaching purposefully

allows instructors to consistently observe another instructor in the classroom and implement useful instructional approaches they would not have attempted on their own. This encourages continuous reflection upon one's teaching practices along with the platform to try new things. At its core, co-teaching fosters reflexivity in instructional approaches, allowing growth at both a personal and professional level.

For the participants in this study, the co-teaching relationship also offered an avenue for mentorship with an experienced faculty member or co-teaching partner that encouraged examination of their teaching approaches as they navigate the classroom. In other words, the co-teaching partner not only provided an opportunity for *observation* of a different teaching style, but an opportunity for *mentorship*. The nature of the co-teaching partnership allows for a mentor to be there at one's side throughout an entire semester or year, providing a consistent partner from whom to seek advice. Graduate assistants in this study noted the increased opportunity to seek advice from their co-teaching partner; this allowed for different perspectives and approaches to be offered within the classroom. For example, when one of the GTAs noticed a problem student in the classroom, he was able to seek advice from his co-teaching partner on how to proceed in disciplining the student. In such instances, co-teachers utilized collaborative teaching approaches to examine the best practices for navigating difficult situations. Working with a co-teaching partner encourages reflexivity as the instructors examine their weakness in the classroom, propose new ideas to handle a variety of situations, and finally apply their success to their own instructional practices. These findings were echoed by Thousand, Villa, and Nevin (2015), who found that supportive co-teaching arrangements allowed both teachers an opportunity to experience new curriculum and examine different

techniques in the classroom. For GTAs new to teaching, exposure to different classroom approaches offers a foundation from which to build in their future instructional endeavors. Furthermore, co-teaching helps GTAs to enhance their teaching practice, be reflexive in the negotiation of their teaching practices, and utilize different teaching strategies (Bacharach et al., 2008). Through reflexivity, GTAs can reflect on their teaching practices to find areas of improvement and evaluate their strengths.

Interestingly, student participants in this study also engaged in reflexivity. They engaged in reflexivity when examining the benefits of co-teaching as compared to traditional approaches in education. The students found co-teaching offered an avenue for learning different perspectives from their instructors, modeled different teaching styles and approaches in the classroom, and increased the opportunity to seek advice or help. When the students made these claims, they were comparing their observations to their experiences within traditional classrooms. Thus, experience in the co-teaching classroom provided the platform for students to explore and to be reflexive about their education and the approaches that were best for them. In the end, these students found their experiences to be positive and even noted their likelihood of enrolling in another co-teaching classroom.

On the other hand, students in traditional classrooms did not have the platform from which to explore co-teaching classrooms as a comparison. As a result, they were far less reflexive in their thinking about the potential of other educational approaches. Many reported that they were comfortable in their traditional classroom setting and expressed resistance to exploring new approaches. One participant even stated that it would be problematic to "experiment with their education." The students in traditional

classrooms were less willing to enroll in co-teaching classrooms and were unencouraged to reflect on their educational experiences in higher education. These findings imply that co-teaching students are reflective on their classrooms experiences because they have traditional learning experiences to make comparisons and evaluate the effectiveness of co-teaching classrooms on their education. This level of reflexivity encourages students to be invested in the educational process, leading them to be less passive and instead make conscious decisions that contribute to their learning.

Co-teaching provides a unique opportunity as a tool for reflexivity. For both instructors and students in co-teaching classrooms, there is an element of reflection embedded into the course design. For instructors, growth on personal and professional levels are likely experienced. Furthermore, co-teaching allows for mentorship between teaching partners that may contribute to an enhanced learning environment. Congruently, students are more likely to be reflective about their educational process, which leads them to make informed decisions in their educational journey.

Increased opportunities for student retention. Research shows that a student's experience in the social and academic sphere of college has a direct impact on student dropout rates or voluntary withdrawal from an educational institution (Tinto, 1975). Such research conveys the significance of finding ways to enhance the student's experience in college to retain students. The results of this study showed that co-teaching has the potential to help enhance students' experiences in college, and ultimately may boost retention rates. To further examine this, rapport building, approachability of instructor, and student affective learning will be discussed as they relate to student retention.

One way in which to increase student retention is through rapport between teachers and students (Glazier, 2016; Gurland & Grolnick, 2008). The GTAs interviewed in this study discussed their ability to build strong rapport with students due to their similarities with undergraduates. They argued that GTAs are often younger instructors, having experienced their undergraduate careers more recently than university professors. Being aware of the struggles of undergraduate students, GTAs in this study offered perspectives to their students in a different way than an experienced instructor could provide. For example, a GTA interviewed for this study claimed that she had less than one year between her undergraduate and graduate program before she started teaching. Having just finished her undergraduate degree, she was able to relate to students and empathize with them in a way that older instructors could not. GTAs in co-teaching partnerships may be able to capitalize on this ability to relate to students even more. In addition, since there are two instructors present, they have the opportunity to display the rapport that they have with each other, which likely would encourage a positive classroom environment and strong rapport with students. Glazier (2016) states the importance of rapport building on student retention, noting that high-rapport relationships between instructor and student are a key factor in student success. Thus, rapport building acts as an instructor-driven action that improves student retention rates and enhances grades.

In addition to rapport, instructor approachability is important in helping to retain students (Glazier, 2016; Benson et al., 2005). Findings of this study revealed instructor approachability as a benefit of co-teaching. Co-teaching instructors found students are more willing to approach them with questions or seek clarification because they would

often establish positive student-teacher relationships with their students. This is partly a matter of numbers. Due to the decreased teacher-to-student ratio in classrooms, co-teaching provides the opportunity for stronger development of student-teacher relationships. Furthermore, Diana Jr. (2014) notes that co-teaching decreases the teacher-to-student ratio that allows students increased opportunities to seek help from co-teaching instructors. In this study, one of the GTAs interviewed noticed that she would be approached by female students that were intimidated in seeking help from her male co-teaching partner. Because there are two teachers involved, the co-teaching classroom offers an increased opportunity for students to seek help from an instructor they find to be less intimidating, more immediate, or more understanding. In other words, in co-teaching classrooms, the likelihood of students seeking help from an instructor they view as approachable is high, and because of the relationship between approachable instructors and student retention in research, there is increased potential for student retention in co-teaching classrooms.

Furthermore, this study found that students in co-teaching classrooms had higher levels of affective learning than students in traditional classrooms, and affective learning has been shown to contribute to higher retention of students (LeFebvre and Allen, 2014; Zhang, 2011). Students in co-teaching classrooms in this study reported that they liked their instructors and their course more than students in traditional classrooms. The co-teaching participants also reported a higher likelihood to enroll in a future course with one or more of their co-teaching instructors. The desire for students to enroll in future courses creates a cycle of student retention in higher education in which students complete a course and enroll in future courses with that instructor or within that

department. In addition, a student may build a relationship with his/her instructor that increases that student's motivation to continue his/her education. There were many qualitative comments from students in this study that reflected such motivation; participants referenced one of their co-teaching instructors and discussed ways in which that instructor influenced their educational experience for the better. In these instances, students experienced affect towards their instructor in ways they had not experienced in traditional courses. Furthermore, when a student views himself/herself as successful in the classroom and is excited by the course content, he/she may experience increased desire to enroll in future courses in the same discipline. This illustrates the importance of the relationship between affective learning in co-teaching classrooms and retention.

The opportunities for increased rapport building, instructor approachability, and student affective learning suggest the need for further research to explore the relationship between co-teaching and retention rates.

Increased opportunities for student learning. The findings of this study suggest that co-teaching creates an opportunity for increased student learning. Specifically, the diversity of perspectives, wealth in instructor experiences, differing instructional styles, and student cognitive learning were themes discussed by participants in this study, all of which may contribute to student learning.

The participants in this study found co-teaching offered an opportunity for increased student learning when compared to traditional teaching approaches. Students believed that having more than one instructor in the classroom provided a wealth of expertise among their instructors. For example, students in co-teaching classrooms appreciated getting two answers to questions they asked in class because it provided

greater depth of understanding of course material. The diversity of perspectives from two instructors helped to increase opportunities for students to learn. For students in co-teaching classrooms, there is a wealth of expertise provided by two instructors on a given topic, which allows students to develop their own arguments and understanding of the content. Additionally, having different instructor expertise creates a broader picture of course topics.

Furthermore, students in co-teaching classrooms believed they learned about different life experiences from their instructors, and how to relate those experiences to course content. For example, one of the interview participants in this study is an international instructor that was paired with an American co-teaching partner. The dynamic experiences shared between the two instructors allowed a wealth of content application to a variety of experiences that would not have been offered to students who had only an international instructor or only an American instructor. The findings of this study are congruent with those of Yanamandram and Noble (2015), who found co-teaching allows students to experience different perspectives in the classroom, especially as it relates to course content and application. The implementation of co-teaching models in higher education allows students to experience content application through incorporation of diverse experiences and viewpoints that may not have been granted in a traditional learning approach.

Interestingly, student learning outcomes have been scarcely researched in relation to co-teaching in higher education. Sweigart and Landrum (2015) note there is scarce empirical research examining co-teaching in ways that allow inferences to be made about what student learning outcomes can be attributed to co-teaching. While this study did not

find significant differences in cognitive learning outcomes for students in co-teaching classes versus traditional classes, there are inferences that can be made. This lack of significance in cognitive learning suggests that students are going to find avenues to be successful in the classroom, regardless of their classroom structure. This is upheld by Bolkan, Goodboy, and Myers (2016), who found that students self-regulate their learning despite their perception of the teaching effectiveness they receive from their instructor. Perhaps this explains the small difference in cognitive learning outcomes between co-teaching classrooms and traditional classrooms, hinting that students will be audacious in their learning techniques regardless of delivery style and instructional techniques. Furthermore, these findings allow confidence in implementing co-teaching curriculum in higher education. While this seems like a risk in changing the way students learn, there is assurance in the fact that students will self-regulate their learning in a classroom, whether they deem it as effective or ineffective.

Further research is warranted in exploring the influence of co-teaching on student learning. Participants in this study found diversity of instructor perspectives, different expertise and experiences, and varying instructional styles as benefits to co-teaching; ultimately, these also contribute to student learning. However, no differences were found in student perceptions of cognitive learning; additional research is needed to explore this further.

Co-teaching as a training model. Findings of this study suggested that exploration of co-teaching as a training model is warranted, but caution must be taken when considering power differences and lack of knowledge about teaching by GTAs. While there are exponential benefits to co-teaching implementation in higher education

among GTAs, two of the participants in this study who had experience co-teaching with distinguished faculty members experienced significant power distance in their co-teaching relationship. However, this is not an uncommon phenomenon. As noted by prior research, the potential for power struggles to arise in co-teaching partnerships emphasizes the probability of having to navigate power differentials in the implementation of this model of instruction (Walters & Misra, 2013). The findings of the current study along with previous research suggest that co-teaching partnerships between two individuals with equal levels of power and decision making may be more beneficial. This is partly because the graduate assistants in this study claimed that their faculty partner had little to no interest in the collaborative aspect of co-teaching. At the very least, this implies that caution should be advised when placing a GTA with an experienced faculty member, as the benefits of co-teaching may not be experienced in situations where a faculty member does not view co-teaching as collaborative. Previous research noted that for co-teaching be effective, "collaborative models require that faculty be reflexive about power differentials between themselves and students, and responsive when their graduate student collaborator raises concerns" (Cordner et al, 2012).

While the GTAs viewed power differentials in their co-teaching partnership, they were equally as likely to feel unprepared or lack the proper knowledge surrounding the implementation of co-teaching models. If two inexperienced GTAs were placed together for a co-teaching partnership, this could backfire on the instructors. Thus, schools must proceed with caution when implementing co-teaching models because of this lack of preparation and knowledge of pedagogy in general and co-teaching curriculum. However, there is still merit in implementing co-teaching as a training model in higher education.

Co-teaching allows instructors access to mentorship, opportunities to observe one another, and reflexive practices in their pedagogical approaches that contribute to instructor growth. Nonetheless, Plank (2011) finds that there is a "messiness" involved in co-teaching that requires partners to navigate their approaches to teaching in different ways than they would on their own. While participants in this study labeled lack of familiarity with co-teaching models a drawback, previous research argues that lack of familiarity contributes to the constant transformation associated with learning the facets of co-teaching models (Plank, 2011; Ploessl et al., 2010). To embrace the lack of preparedness or "messiness" associated with co-teaching, it is important for such training models to illustrate the importance of this process as it leads to instructor growth and increased comfortability in examining different instructional approaches.

Graduate programs need to consider the possibility of incorporating co-teaching models into their graduate teacher training and instructor development processes (Shostak et al., 2010). Wider spread implementation of co-teaching courses with GTAs has the potential to enhance the professional development of GTAs and increase the quality of academic excellence at an institutional level. Walters and Misra (2013) noted, "Co-teaching for one semester should give graduate students the opportunity to emphasize necessary and practical teaching skills to better prepare themselves for independently instructing a course" (p. 300). For graduate programs that choose to implement co-teaching models into their training courses, graduate students have the potential to experience enriched academic careers, in addition to the faculty and undergraduate student benefits from the collaborative teaching experience.

A number of implications can be drawn from the results of this study. First, co-teaching appears to encourage reflexivity among both students and instructors. In addition, if implemented well, co-teaching may present opportunities for increased student retention and enhanced student learning. Finally, power differences and lack of content and pedagogy knowledge by new GTAs must be considered when utilizing co-teaching as a training model for graduate teaching assistants.

Limitations

This study had several limitations that may have influenced the results. One of the limitations was the small sample sizes for both qualitative surveys (n=36) and interviews (n=3). Also, the sample was largely homogeneous, comprised of GTAs and students from the same communication department. A similar study with a more heterogeneous sample would allow examination of co-teaching in departments outside of Communication Studies. To create a heterogeneous sample, the researcher could seek participants from university-wide courses that incorporate co-teaching instructors into their curriculum to gain the perspective of the benefits and drawbacks of implementing co-teaching in higher education courses outside of Communication Studies.

Furthermore, the convenience sampling of survey respondents may also be considered a limitation that contributed to the lack of variety in the sampling of students in both co-teaching and traditional classrooms. The convenience sampling of GTAs offered a small sample size for in-depth qualitative interviews. With this, results are likely not generalizable to a larger population. However, this does offer a glimpse into the benefits and drawbacks of co-teaching within higher education from the perspective of these three participants.

Lastly, this study examined the perceived levels of cognitive learning of students in co-teaching and traditional classrooms. While the study found no significance difference in perceived levels of cognitive learning between co-teaching and traditional classroom students, this presents a limitation. Student perceptions were examined and not course grades or test scores, or other performance measures of cognitive learning. The researcher's limited access to other measures of cognitive learning contributed to this specific limitation, thus student perceptions of cognitive learning were used in this study.

Future Research

In addition to using larger, more diverse samples and different sampling techniques, future research could examine how the gender, race, and/or experience level of co-teaching instructors influences student perceptions of affective and cognitive learning. Research could incorporate a comparative study of how and if gender, culture, and/or experience level of co-teaching partners influence student perceptions of the instructional approaches and affective and cognitive learning among students. In this study, instructor identity was not examined as an influence of student learning outcomes in co-teaching and traditional classrooms.

An important variable that emerged from the data was the idea of instructor approachability, which relates to immediacy. To understand the impact of instructor approachability on a larger scale, future research could address the examination of verbal and nonverbal immediacy behaviors between co-teaching partners while in and outside of the classroom. This information could be utilized to examine the effects of immediacy use between co-teaching partners on student affective learning.

To understand the importance co-teaching on student retention rates in higher education, future research could compare student retention rates in co-teaching and traditional classrooms. Additionally, the retention of GTAs can be contingent on the success they experience in their first years of instruction. If training for their graduate assistantship did not provide valuable foundations for instructional gain, GTAs may choose to end their teaching experience. Further research can address co-teaching models as a possible avenue for GTA retention and pursuit of degree completion.

To address the limitation of this study in measures of cognitive learning, future research could collect data such as recorded grades, test scores, and/or assignments coded for depth of reflection and application. The findings of this study did not find significant differences in perceptions of cognitive learning; however, future research may find actual differences in cognitive learning between students in co-teaching versus traditional classrooms.

Finally, while research on the benefits of co-teaching for GTAs is valuable, it would be valuable to oversee the actual design and implementation of a training program for teaching assistants. This research is valuable for the personal and professional development of GTAs, but the actual implementation of such models would allow for the benefits to be experienced. Thus, future research could plan, implement, and research the application of a training model that utilizes co-teaching models for instructor development.

Conclusion

When I first conceived the idea for this project one year ago, it was out of curiosity that I approached this topic to find answers. During a job interview I had during

the process of writing this thesis, I was asked "Do you support a traditional curriculum?" While I was surprised by this question, I proudly answered, "Well, my research would suggest no, that my research, teaching, and learning support mixing up the traditional curriculum and learning from that experience." While the process of conducting this research was not easy, it has been nothing shy of rewarding. Having immersed myself in the practice of co-teaching, I have found more hope in the future of education in higher education. I leave this project with a passion to transform the approaches I take towards educating my students, preferably in efforts like those yielded in co-teaching experiences.

As an educator and student, I have grown significantly from this program. I have been constantly challenged to expand my research and gain valuable skills that transform my teaching style. Through the experience of co-teaching in higher education, I have been awarded an opportunity that is not granted to every graduate teaching assistant. From this experience, I grew significantly as an instructor and experienced a wealth of immediacy with my students because of this classroom structure. My time working on this research project, as a student, and being an instructor have filled my life with a wealth of knowledge and experience that never failed to amaze me. This is an experience that I truly will never forget.

References

Adams, N. E. (2015). Bloom's taxonomy of cognitive learning objectives. *Journal of the Medical Library Association: JMLA, 103*(3), 152-153.

Alexandrache, C. (2014). Journal reflexive, an instrument for student preparation in the teaching profession. *Social and Behavioral Sciences, 149*, 20-24.

Bacharach, N., Heck, T. W., & Dahlberg, K. (2008). Co-teaching in higher education. *Journal of College Teaching and Learning, 5*(3), 9-16.

Baltrinic, E., Jencius, M. J., & McGlothlin, J. (2016). Co-teaching in counselor education: Preparing doctoral students for future teaching. *Counselor Education & Supervision, 55,* 31-45.

Beavers, H., & DeTurck, D. (2000). Shall we dance? Team teaching and the harmony of collaboration. *Almanac, 46*(30), 12.

Benson, T. A., Cohen, A. L., & Buskist, W. (2005). Rapport: Its relation to student attitudes and behaviors toward teachers and classes. *Teaching of Psychology, 32*, 236-238.

Blanchard, K. D. (2012). Modeling lifelong learning: Collaborative teaching across disciplinary lines. *Teaching Theology and Religion, 15*(4), 338-354.

Bloom, B., Englehart, M. Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York, Toronto: Longmans, Green.

Bolkan, S., Goodboy, A. K., & Myers, S. A. (2016). Conditional processes of effective instructor communication and increases in students' cognitive learning. *Communication Education, 66*(2), 129-147.

Cavanagh, S. (1997). Content analysis: Concepts, methods and applications. *Nurse Researcher, 4,* 5-16.

Chinn, P. L., & Kramer, M. K. (1999). *Theory and nursing a systematic approach*. St. Louis, MO: Mosby Year Book.

Chory, R. M., & McCroskey, J. C. (2009). The relationship between teacher management communication style and affective learning. *Communication Quarterly, 47*(1), 1-11.

Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation and learning. *Communication Education, 39,* 323-340.

Conderman, G., Johnston-Rodriguez, S., & Hartman, P. (2009). Communicating and collaborating in co-taught classrooms. *Teaching Exceptional Children Plus, 5(*5), 2-17.

Cordner, A., Klein, P. T., & Baiocchi, G. (2012). Co-designing and co-teaching graduate qualitative methods: an innovative ethnographic workshop models. *Teaching Sociology, 40,* (3), 215-226.

Cramer, S. (2006). *The special educator's guide to collaboration*. Thousand Oaks. CA: Corwin Press.

Dey, I. (1993). *Qualitative data analysis: A user-friendly guide for social scientists*. London, England: Routledge.

Diana Jr., T. J. (2014). Co-teaching: Enhancing the student teaching experience. *Kappa Delta Pi Record, 50*(2), 76-80.

Elo, S. & Kyngas, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing, 62*(1), 107-115.

Estepp, C. M. & Roberts, T. G. (2015). Teacher immediacy and professor/student rapport as predictors of motivation and engagement. *North American Colleges and Teachers of Agriculture, 59*(2), 155 – 163.

Gaytan, J. (2010). Instructional strategies to accommodate a team-teaching approach. *Business Communication Quarterly, 73*(1), 82-87.

Glazier, R. A. (2016). Building rapport to improve retention and success in online classes. *Journal of Political Science Education, 12*(4), 437-456.

Goodboy, A. K., Weber, K., & Bolkan, S. (2009). The effects of nonverbal and verbal immediacy on recall and multiple student learning indicators. *Journal of Classroom Interaction, 44*(1), 4-12.

Gurland, S. T., & Grolnick, W. S. (2008). Building rapport with children: Effects of adults' expected, actual, and perceived behavior. *Journal of Social and Clinical Psychology, 27*(3), 226-253.

Hanslovsky, G., Moyer, S., & Wagner, H. (1969). Why team teaching? C. E. Merrill Publishing Co.: Indianapolis, IN.

Harris, C. Harvey, A. N. C. (2000). Team teaching in adult higher education classrooms: Toward collaborative knowledge construction. *New Directions for Adult and Continuing Education, 87*, 25-32.

Held, G., & Rosenberg, W. (1983). Collaborative course design: Not my course, not their course, but our course. *Washburn Law Journal, 31*(2), 367-87.

Hunt, B., & Weber Gilmore, G. (2011). Learning to teach: Teaching internships in counselor education and supervision. *The Professional Counselor, 1*,143-151.

Hunt, S., Simonds, C., & Cooper, P. (2002) Communication and teacher education: Exploring a communication course for all teachers. *Communication Education, 51*:1, 81-94.

Johnson, D. W., Johnson, R. T., & Smith, K. A. (2000). Constructive controversy. *Change, 32*, 29-37.

Krathwohl, D., Bloom, B., & Masia, B. (1956). *Taxonomy of educational objectives. Handbook II: Affective domain.* New York, NY: David McKay.

LeFebvre, L. L., & Allen, M. (2014). Teacher immediacy and student learning: An examination of lecture/laboratory and self-contained course sections. *Journal of the Scholarship of Teaching & Learning, 14*(2), 29-45. doi:10.14434/josotl.v14i2.4002.

Lock, J., Clancy, T., Lisella, R., Rosenau, P., Ferreira, C., & Rainsbury, J. (2016). The lived experiences of instructors co-teaching in higher education. *Brock Education Journal, 26*(1), 22- 35.

McCroskey, J. C. (1994). Assessment of affect toward communication and affect toward instruction in communication. In S. Morreale & M. Brooks (Eds.), *1994 SCA summer conference proceedings and prepared remarks: Assessing college student competence in speech communication.* Annandale, VA: Speech Communication Association.

McDuffie, K. A., Landrum, T. J., & Gelman, J. A. (2008) Co-teaching and students with emotional and behavioral disorders. *Beyond Behaviors, 17*, 11-16.

Mottet, T. P., Richmond, V. P., & McCroskey, J. C. (2006). *Handbook of Instructional Communication: Rhetorical & Relational Perspectives.* Boston, MA: Allyn & Bacon.

Plank, K. M. (2011). Introduction. In K.M. Plank (Ed.), *Team teaching: Across the disciplines, across the academy* (pp. 1-12). Sterling, VA: Sylus.

Ploessl, D. M., Rock, M. L., Schoenfeld, N., & Blanks, B. (2010). On the same page. Practical techniques to enhance co-teaching interactions. *Intervention in Schools and Clinics, 45*(3), 158-168.

Potts, E. A., & Howard, L. A. (2011). How to co-teach: A guide for general and special educators. Paul H. Brooks Publishing Co., Inc.: Baltimore, MD.

Rea, P. J., & Connell, J. (2005, September). Minding the fine points of co-teaching. *Principal Leadership*, 29-35.

Reinard, J. C. (2008). Introduction to communication research. McGraw-Hill: New York, NY.

Richmond, V., Gorham, J., McCroskey, V. (1987). The relationship between selected immediacy behaviors and cognitive learning. In M. McLaughlin (Ed.*), Communication yearbook 10* (pp.574-590). Sage: Newbury Park, CA.

Richmond, V.P., & McCroskey, J. C. (Eds.). (1992). *Power in the classroom: Communication, control, and concern*. Hillsdale, NJ: Lawrence Erlbaum.

Sanders, J. A., & Wiseman, R. L. (2009). The effects of verbal and nonverbal teacher immediacy on perceived cognitive, affective, and behavioral learning in the multicultural classroom. *Communication Education, 39*(4), 341-353.

Scruggs, T. E., Mastropieri, M. A., & McDuffie, K. A. (2007). Co-teaching in inclusive classrooms: A metasynthesis of qualitative research. *Teaching Exceptional Children, 73*(4), 392-416.

Shostak, S., Girouard, J., Cunningham, D., & Cadge, W. (2010). Teaching graduate and undergraduate research methods: a multipronged departmental initiative. *Teaching Sociology, 38*(2), 93-105.

Smith, E. R. (2005). Learning to talk like a teacher: Participation and negotiation in co-planning discourse. *Communication Education, 54*:1, 52-71.

Sweigart, C. A., & Landrum, T. J. (2015). The implication of number of adults on instruction: Implications for co-teaching. *Preventing School Failure, 59*(1), 22-29.

Teven, J.J. & McCroskey J.C. (1997). The relationship of perceived teacher caring with student learning and teacher evaluation. *Communication Education, 46*, 167-175.

The new rules: An overview of the testing and accountability provisions of the No Child Left Behind Act. (2014). *Public Broadcasting Service.* Retrieved from http://www.pbs.org/wgbh/pages/frontline/shows/schools/nochild/nclb.html.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 53*, 185-195.

Villa, R. A., Thousand, J. S., & Nevin, A. I. (2004). A guide to co-teaching: Practical tips for facilitating student learning. Corwin Press: Thousand Oaks, CA.

Walters, K., & Misra, J. (2013). Brining collaborative teaching into doctoral programs: Faculty and graduate student co-teaching as experiential training. *The American Sociologist, 44*(3), 292-301.

Wilson, V. A., & Martin, K. M. (February, 1998). Practicing what we preach: Team teaching at the college level. Paper presented at the annual meeting of the Association of Teacher Educators, Dallas, TX.

Wrench, J., Richmond, V. & Gorham, J. (2009). Teaching as a communication process. In J. Wrench, V. Richmond. & J. Gorham, *Communication affect & learning in the classroom* (pp. 1-16). San Francisco, CA: Creative Commons.

Yanamandram, V. K., & Noble, G. I. (2005). Team teaching: Student reflections of its strengths and weaknesses. In R. Atkinson, & J. Hobson (Eds.), *Teaching and learning forum: The reflective practitioner* (pp.1-10). Australia: Murdoch University.

Zhang, Q. (2011). Teacher immediacy, credibility, and clarity as predictors of student affective learning: A Chinese investigation. *China Media Research*, *7*(2), 95.

Appendix A

Interview Questions

1. The co-teaching model has been implemented within higher education to create a progressive learning space. What characteristics of the co-teaching model are you familiar with? What characteristics are you least familiar with?
2. Co-teaching has scarcely been implemented with two GTA as the instructors. Why do you believe this is the case?
3. How can collaboration be beneficial to GTA interested in a co-teaching experience?
4. If you were teaching a course collaboratively, what pedagogical approaches would be important to be implemented in your co-teaching classroom?
5. What characteristics are important to look for when finding another instructor with whom to co-teach? How do these characteristics enhance or hinder the teaching experience?
6. Should co-teaching be used to teach the basic course in Communication? Why or why not?
    a. Follow up: Should co-teaching be used to teach the basic course across disciplines?
7. In what ways can co-teaching be used most effectively in the basic course?
8. How do students benefit from the co-teaching model in the basic course?

Appendix B

Co-Teaching Classroom Survey

1. What approaches did your GTA use to illustrate collaborative teaching inside and outside of the classroom?
2. Of these approaches you have observed, which of them did you find to be the most effective?
3. Of these approaches you have observed, which of them did you find to be the least effective?
4. How does the co-teaching model demonstrate effective communication between GTA?
5. How does the co-teaching model demonstrate effective communication for students in the classroom?
6. Do you prefer traditional or co-teaching approaches in the classroom?
7. Explain why you answered traditional or collaborative teaching in the previous question.
8. Using the following scale, how likely are you to enroll in another co-teaching classroom?

Very Unlikely	Unlikely	Undecided	Likely	Very Likely
1	2	3	4	5

9. Using the space below, please explain your answer regarding the likeliness to enroll in a co-teaching course:

10. DIRECTIONS: Please answer the following two questions. Please place your response in the space provided (Richmond et al., 1987).

How much did you learn in this class?

Learned Nothing 0 1 2 3 4 5 6 7 8 9 Learned More Than Any Other Class

How much do you think you could have learned in this class had you had the ideal instructor?

Learned Nothing 0 1 2 3 4 5 6 7 8 9 Learned More Than Any Other Class

11. DIRECTIONS: Using the following scales, evaluate your teacher. Please circle the number for each item that best represents your feelings. The closer a number is to the item/adjective the more you feel that way (McCroskey, 1994).

Overall, the instructor I have in the class is:

Good	1	2	3	4	5	6	7	Bad
Valuable	1	2	3	4	5	6	7	Worthless
Fair	1	2	3	4	5	6	7	Unfair
Positive	1	2	3	4	5	6	7	Negative

The likelihood of my taking another course with this specific teacher is:

Likely	1	2	3	4	5	6	7	Unlikely
Possible	1	2	3	4	5	6	7	Impossible
Probable	1	2	3	4	5	6	7	Improbable
Would	1	2	3	4	5	6	7	Would Not

Traditional Classroom Survey

1. What approaches did your GTA utilize in the classroom to demonstrate effective teaching?
2. Of these approaches you have observed, which of them did you find to be the most effective?
3. Of these approaches you have observed, which of them did you find to be the least effective?
4. How does the traditional model of teaching demonstrate effective communication from your graduate teaching assistant?
5. How does the traditional model of teaching demonstrate effective communication between students in the classroom?
6. Have you taken classes or parts of classes that were co-taught by more than one instructor?
    a. Yes (Proceed to Question #7)
    b. No (Proceed to Question #9)
7. Do you prefer traditional or co-teaching approaches in the classroom?
    a. Traditional
    b. Co-teaching
8. Explain why you answered traditional or collaborative teaching in the previous question.
9. Using the following scale, how likely are you to enroll in a co-teaching course in higher education?

Very Unlikely	Unlikely	Undecided	Likely	Very Likely
1	2	3	4	5

10. Using the space below, please explain your answer regarding the likeliness to enroll in a co-teaching course:

11. DIRECTIONS: Please answer the following two questions. Please place your response in the space provided (Richmond et al., 1987).

How much did you learn in this class?

Learned Nothing 0 1 2 3 4 5 6 7 8 9 Learned More Than Any Other Class

How much do you think you could have learned in this class had you had the ideal instructor?

Learned Nothing 0 1 2 3 4 5 6 7 8 9 Learned More Than Any Other Class

12. DIRECTIONS: Using the following scales, evaluate your teacher. Please circle the number for each item that best represents your feelings. The closer a number is to the item/adjective the more you feel that way (McCroskey, 1994).

Overall, the instructor I have in the class is:

Good	1	2	3	4	5	6	7	Bad
Valuable	1	2	3	4	5	6	7	Worthless
Fair	1	2	3	4	5	6	7	Unfair
Positive	1	2	3	4	5	6	7	Negative

The likelihood of my taking another course with this specific teacher is:

Likely	1	2	3	4	5	6	7	Unlikely
Possible	1	2	3	4	5	6	7	Impossible
Probable	1	2	3	4	5	6	7	Improbable
Would	1	2	3	4	5	6	7	Would Not